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# Maths Teacher's Guide: Class 2



PHOTO: Alex Kamweru

Primary Math and Reading (PRIMR) Initiative

# PRIMR MATHS Teacher's Guide - Class 2

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## **Disclaimer**

These materials are for research and evaluation purposes only and no usage of these materials is permitted outside of PRIMR-supported schools, except by express authority from the MoEST.

## Welcome to PRIMR!

Welcome to the **Mathematics Programme**. This programme is developed to help teach the critical mathematics concepts introduced in the KICD Mathematics Syllabus. With the introduction of a comprehensive mathematics programme, mathematics understanding and scores are expected to improve. This programme has been designed to build upon the success of earlier initiatives and address the required mathematics to help your pupils succeed. Throughout the year, your pupils will learn a variety of new mathematics skills using this book in the classroom and at home. Each day's activity is organized to have the teacher's guide and the pupil's book on one page. This is meant to make the teacher's work easier as the teacher will not be required to carry two books yet they can still see what the pupils are expected to do.

### Programme Components

#### Lesson Plans

The *Mathematics* programme has two main components: the Teacher's guide and the *Pupil Activity Book*. The Teacher's guides are designed to provide teachers with a scaffold to support high quality mathematics instruction. Teachers should use them as a guide and build on them as appropriate for their pupils.

Week 1 - 3 has structured lesson guide for the teacher to refer to and understand the PRIMR methodology while the rest of the weeks from 4 - 27 are guides that help the teacher deliver the lessons successfully.

These guides use the following terms to help the teacher.

**Draw:** This refers to what the teacher ought to write on the board.

**Demonstrate:** This is the teacher's activity. It is expected that the teacher shows the pupils how to work out the various operations.

**Guide:** The teacher and the pupils need to work out the activities at this time. The teacher asks leading questions to check if the pupils understood what was demonstrated.

**Activities:** The 'activity' represents a separate concept in each lesson and the activities range from 1 - 4 per lesson. Typically a new concept is introduced every day and the other activities are reviews of previously taught concepts.

# Structured Teacher's Guide Components (Weeks 1-3 only)

## TEACHER'S GUIDE WEEK 2, DAY 1

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<p><b>Topics</b> ← Shows the topics covered in the lesson.</p> <p>Whole numbers, Operations</p> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>Identifying numbers 51 to 70</li> <li>Rote counting by 1s from 51 to 70 and from 70 to 51</li> <li>Breaking numbers to subtract</li> <li>Solving written addition problems</li> </ul>	<p><b>Objectives</b></p> <p>By the end of the lesson, pupils will be able to:</p> <ul style="list-style-type: none"> <li>identify numbers 51 to 70</li> <li>count by 1s up to 70</li> <li>break numbers to subtract with minuends up to 19</li> <li>solve written addition problems with sums up to 30</li> </ul> <p><b>Learning Resources</b> ← Shows materials required in teaching the lesson.</p> <p>1. Pupil's activity books 2. Pupil's exercise books</p> <p><b>Pupil Activity Book</b> </p> <p>Classwork page 6</p>	
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Week 2, Day 1

Write the numbers from 60 to 51.

① 60 \_\_\_\_\_

Write the numbers from 70 to 61.

② 70 \_\_\_\_\_

Work out.

③  $8 + 7 = \underline{\quad}$       ④  $7 + 5 = \underline{\quad}$




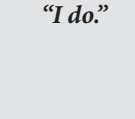
Subtract by breaking apart.

⑤  $14 - 8 = \underline{\quad}$       ⑥  $13 - 5 = \underline{\quad}$

$14 - \underline{4} - \underline{4} = \underline{\quad}$        $13 - \underline{3} - \underline{2} = \underline{\quad}$

⑦  $12 - 8 = \underline{\quad}$       ⑧  $15 - 6 = \underline{\quad}$






$12 - \underline{\quad} - \underline{\quad} = 4$        $15 - \underline{\quad} - \underline{\quad} = 9$


 <p>Teacher icons indicate strategies for the teacher to demonstrate to the pupils how to work out the activity.</p>	<p><b>Introduction (5 min.)</b> ← This section quickly reviews the previously taught concepts.</p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li><i>Good morning, children. Today we will learn how to count by 1s from 51 to 70 and from 70 back to 51. We will also break numbers apart to subtract and we will learn a new way to add.</i></li> <li><i>Before we begin our new lesson, let's review writing and identifying the numbers from 0 to 70.</i></li> <li>Write the numbers 28, 44, 36 on the board and ask the pupils to say them. Say the numbers 17, 22, 48, 6 and ask a few pupils to write them on the board.</li> </ul> <p><b>Development (20 min.)</b></p>	 <p><b>Teacher and Pupil Activities</b></p> <p>"We do."</p>	<p><b>Guide:</b> Now let's practice counting by 1s from 51 to 70. I'll start and you continue: 51-52-53-54 . . . 70. (Have pupils continue counting until they reach 70 as you point at the numbers).</p> <p><b>Next,</b> we'll count by 1s from 70 back to 51. I'll start and you continue: 70-69-68-67 . . . 51 (Have pupils continue counting until they reach 51 as you point at the numbers).</p>
 <p><b>Teacher Activities</b></p> <p>"I do."</p>	<p><b>Activity 1: Whole Numbers: Counting</b></p> <p><b>Demonstrate:</b> Write the numbers from 51 to 70 on the board. I will now count by 1s from 51 to 70 as I point at the numbers. Count by 1s from 51 to 70, saying each number clearly and slowly as you point at the numbers. I will now count back by 1s from 70 to 51. Count back by 1s from 70 to 51, saying each number clearly and slowly as you point at the numbers.</p>	 <p><b>Teacher Activities</b></p> <p>"I do."</p>	<p><b>Activity 2: Operations: Subtraction</b></p> <p><b>Demonstrate:</b> Now I will show you how to break apart numbers to subtract and find the difference.</p> <p>Write <math>13 - 8 = \underline{\quad}</math> on the board.</p> <p><i>If I know the difference of 13 minus 8, I can just write the answer. If I don't know the difference, I can break 8 into 3 and 5 to make the problem easier. I use 3 and 5 because 3 is in the ones place in the number 13. Now I subtract 13 minus 3 minus 5. I know that 13 minus 3 is equal to 10. The number 10 is an easy number to work with. 10 minus 5 is equal to 5. So, 13 minus 8 is equal to 5.</i></p> <p>Write <math>13 - 3 - 5 = 5</math> below the original problem on the board. Then write 5 on the blank line in the original problem.</p>

# Structured Teacher's Guide Components (Weeks 1-3 only)

## TEACHER'S GUIDE WEEK 2, DAY 1

Teacher and pupils icon indicates guided practise activities for teachers and pupils to work out together.

 <p><b>Teacher and Pupil Activities</b> "We do."</p>	<p><b>Guide:</b> <i>Next let's practice subtracting by breaking apart numbers.</i> Write <math>12 - 4 = \underline{\quad}</math> on the board.</p> <p><i>How can we break apart 4 to make the problem easier?</i> (2 and 2) <i>Why do we use 2 and 2?</i> (Because 2 is in the ones place in the number 12) <i>What is 12 minus 2?</i> (10) <i>What is 10 minus 2?</i> (8) <i>What is 12 minus 4?</i> (8) Write <math>12 - 2 - 2 = 8</math> on the board below the original equation. Then write 8 on the blank.</p>
 <p><b>Teacher Activities</b> "I do."</p>	<p><b>Activity 3: Operations: Addition</b> <b>Demonstrate:</b> <i>Now I will show you a way to add numbers.</i> Write <math>9 + 7 = \underline{\quad}</math> on the board.</p> <p><i>I will count on 7 steps from 9 to get the answer.</i> (Hold one finger up at a time as you count) <b>10, 11, 12, 13, 14, 15, 16. Seven steps from 9 takes us to 16.</b> Write 16. <b>So <math>9 + 7 = 16</math></b></p>
<p>Pupils icon indicates what pupils should do in their books as the teacher supervises.</p>	<p><b>Guide:</b> <i>Let's practice our new way of adding.</i> Write <math>8 + 3 = \underline{\quad}</math> on the board.</p> <p><i>We are going to count on from 8 three times to get the answer. Let's count up 3 more than 8:</i> (8-9-10-11). <i>What is 8 plus 3?</i> (11) Write 11 on the blank line.</p>
 <p><b>Pupil Activities</b> "You do."</p>	<p><b>Classwork</b> ( page 6) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>
	<p><b>Conclusion (5 min.)</b> ← <b>Review</b> <span style="border: 1px solid black; padding: 2px;">This section is for quick review of the main components of the lesson.</span></p> <ul style="list-style-type: none"> <li>• <i>Today we learned how to count by 1s and 10s from 51 to 70 and back from 70 to 51. We broke apart numbers for subtraction and added by counting forward. Now you can show me what you have learned.</i></li> <li>• Have a pupil lead the class in counting by 1s from 70 to 1.</li> </ul>

	<p><b>Homework</b> ← <span style="border: 1px solid black; padding: 2px;">Each lesson ends with a homework assignment for pupils. The teacher copies the homework on the board for pupils to copy and do at home.</span></p> <p><b>Add</b></p> <p>1. <math>6 + 9 = \underline{\quad}</math>      2. <math>8 + 5 = \underline{\quad}</math></p> <p>3. <math>15 + 3 = \underline{\quad}</math>      4. <math>17 + 6 = \underline{\quad}</math></p> <p><b>Subtract by breaking apart</b></p> <p>5. <math>12 - 5 = 12 - 2 - \underline{3} = \underline{\quad}</math></p> <p>6. <math>11 - 7 = 11 - 1 - \underline{\quad} = \underline{\quad}</math></p>
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**Evaluation** Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.

**Notes:** ← In this section, provide your notes on pupil performance or tips that will help you use this lesson in future classes.



# Basic Teacher's Guide Components (Weeks 4 and on)

This is the corresponding page from the Pupil's Book.

## Week 4, Day 1

### Introduction

This part introduces the lesson by revising a previous concept.

- Ask several pupils to count by 2s from 2 to 30 and from 30 to 2.

### Development

#### Activity 1 Geometry: Rectangles

- Draw:** Draw the pattern of shapes as shown below on the board.



Work with the pupils to come up with the solution.

Teacher refers pupils to the appropriate exercise

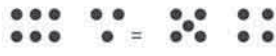
- Guide:** Work with 3 pupils to work out rectangles. Show the pupils how to work out.

#### Activity 2 Ordering numbers

- Draw:** Write the numbers 28, 20, 25 on the board.
- Demonstrate:** Show how to order them from least to greatest using place value. (20, 25, 28 → the tens are all 2, so we look at the ones. 0 is the least, followed by 5 then 8.)
- Guide:** Work with pupils to order numbers 17, 19, 11 from least to greatest on the board using place value (11, 17, 19).

#### Activity 3 Operations: Equivalence

- Draw:** Draw the following on the board:
- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array}$$
- $$6 + 3 = \underline{\quad} + 4$$
- Demonstrate:** Show how to balance the statement as shown:
    - Count the number of dots on the left hand side to get 9.
    - Identify how many more dots you need to add to 4 to get 9. (5)



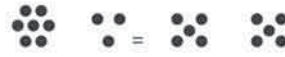
$$6 + 3 = \underline{5} + 4$$

- Draw:** Draw the following on the board:



$$7 + 3 = 5 + \underline{\quad}$$

- Guide:** Work with pupils to balance the statement on the board.



$$7 + 3 = 5 + \underline{5}$$

This summarizes the main concept of the lesson.

### Classwork

- Pupils to work out the activities on page 16.

### Conclusion

- Let 5 pupils come in front of class and give them the number cards; 46, 49, 37, 30, 16. Each pupil will stand for the number they are displaying. Have the five pupils ordered by the class from least to greatest.

### Homework

The homework is to be written on the board for the pupils to copy and do at home.

#### Order from least to greatest

- 18, 16, 19,
- 22, 20, 28,
- 40, 46, 44,
- 35, 31, 37,

#### Balance to make equal

- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array}$$

$$6 + 5 = \underline{\quad} + 3$$
- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array}$$

$$7 + 7 = \underline{\quad} + \underline{\quad}$$

Record what went on in the lesson especially what pupils understood and what they did not understand.

## Week 4, Day 1

### Order from least to greatest.

- 24, 20, 22
- 16, 12, 20

### Write R on the rectangle.



### Balance to make equal.

- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \bullet = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \square$$

$$4 + 1 = 2 + \underline{\quad}$$
- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \square$$

$$2 + 5 = 5 + \underline{\quad}$$
- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \square = \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \bullet$$

$$2 + \underline{\quad} = 5 + 1$$
- $$\begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} + \begin{array}{ccc} \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \end{array} = \bullet + \square$$

$$4 + 2 = 1 + \underline{\quad}$$

16

Record how long the lesson took.

No. of pupils in the class as you taught.

Week 4, Day 1:	Duration:	Roll:
Remarks:		

# TEACHER'S GUIDE WEEK 1, DAY 1

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Whole numbers, Geometry	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>count from 1 to 70.</li> <li>identify shapes</li> </ul>	<b>Pupil Activity Book</b> Classwork page 1
<b>Activities</b> <ul style="list-style-type: none"> <li>Identifying shapes</li> <li>Rote counting from 1 to 70</li> <li>Counting using tens frames</li> <li>Writing and identifying numbers from 51 to 70</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil's activity books</li> <li>Pupil's exercise books</li> </ol>	

Week 1, Day 1

Write C for circle, R for rectangle, and T for triangle.

1 \_\_\_\_\_ 2 \_\_\_\_\_

3 \_\_\_\_\_ 4 \_\_\_\_\_

5 \_\_\_\_\_ 6 \_\_\_\_\_

Write the number to match the number of dots.

7 \_\_\_\_\_ 8 \_\_\_\_\_

9 \_\_\_\_\_ 10 \_\_\_\_\_

11 \_\_\_\_\_ 12 \_\_\_\_\_







Write the numbers from 51 to 60.

51 \_\_\_\_\_

Write the numbers from 61 to 70.












61 \_\_\_\_\_

	<b>Introduction (5 min.)</b> <ul style="list-style-type: none"> <li><i>Good morning, children. Today we will learn how to identify different shapes and write numbers.</i></li> <li><i>Before we begin our new lesson, let's review writing and naming numbers up to 65.</i> Write the numbers 5, 27, 18, 65 on the board and ask pupils to identify them. Now say the numbers 35, 47, 52 and ask pupils to write in their books.</li> </ul>
	<b>Development (20 min.)</b>
<b>Teacher Activities</b> <i>"I do."</i>	<b>Activity 1: Whole numbers: Counting</b> <b>Demonstrate:</b> <i>We have named some of the numbers from 0 to 70 already.</i> <i>I will now write and count by 1s from 51 to 70 to help me remember.</i> Write the numbers from 51 to 70 on the board as you count them. After you have written the numbers, count by 1s from 51 to 70, touching and saying each number clearly and slowly.
<b>Teacher and Pupil Activities</b> <i>"We do."</i>	<b>Guide:</b> <i>Now let's practice counting and writing numbers from 51 to 70.</i> Write the numbers from 51 to 70 on the board. Point at the numbers and count with the pupils by 1s from 51 to 70, saying each number clearly and slowly.

<b>Teacher Activities</b> <i>"I do."</i>	<b>Activity 2: Geometry: Shapes</b> <b>Demonstrate:</b> <i>Now I am going to review how to recognise some shapes.</i> Draw a circle, triangle and rectangle on the board.    Point to the circle. <i>This is a circle.</i> Point to the triangle. <i>This is a triangle.</i> Point to the rectangle. <i>This is a rectangle.</i>
<b>Teacher and Pupil Activities</b> <i>"We do."</i>	<b>Guide:</b> <i>Now we are going to review how to recognise the various shapes.</i> Draw a circle, triangle and rectangle on the board. Point at each shape as you guide the pupils name the shapes. Guide the pupils to name objects with these shapes in their environment.
<b>Teacher Activities</b> <i>"I do."</i>	<b>Activity 3: Whole numbers: Counting</b> <b>Demonstrate:</b> <i>Now I will show you how to count the dots in a tens frame and write the number to represent the dots.</i> Draw a tens frame to represent the number 27 on the board.   





# TEACHER'S GUIDE WEEK 1, DAY 1

 <b>Teacher Activities</b> “I do.”	<p><i>I am going to count the dots in the first tens frame.</i> Count the number of dots in the first tens frame.</p> <p><i>The first tens frame has 10 dots.</i></p> <p><i>I will now count the number of dots in the second tens frame.</i> Count the number of dots in the second tens frame. <i>The second tens frame has 10 dots.</i></p> <p><i>Now I am going to count the number of dots in the third tens frame.</i> Count the number of dots in the third tens frame. <i>The third tens frame has 7 dots.</i></p> <p><i>Therefore, I can count by tens in the first and second tens frame and count by 1s the remaining dots.</i> Count by tens the first 2 tens frame and then by 1s in the third tens frame. <b>10, 20, 21, 22, 23, 24, 25, 26, 27.</b></p> <p><b><math>10 + 10 + 7 = 27</math></b></p>	 <b>Conclusion (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"><li>• Today we learned how to count by 1s from 51 to 70 and write the numbers. We also learned how to recognise the various shapes and find the total number of dots in several tens frames.</li><li>• Have the pupil lead the class in counting by 1s from 1 to 70.</li></ul>																																	
 <b>Teacher and Pupil Activities</b> “We do.”	<p><b>Guide:</b> Let us count the dots in a tens frame and write the number to represent the dots.</p> <p>Draw tens frames to represent the number 25 on the board.</p> <table><tr><td><table><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table></td><td><table><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table></td><td><table><tr><td>●</td><td>●</td><td>●</td><td></td><td></td></tr><tr><td>●</td><td>●</td><td></td><td></td><td></td></tr></table></td></tr></table> <p>Let us count the number of dots in each row.</p> <p>Count with the pupils the number of dots in each row <b>1, 2, 3, 4, 5.</b></p> <p><b>Each row has 5 dots.</b> Continue to count with the pupils the number of dots in the first tens frame <b>6, 7, 8, 9, 10.</b> <b>There are 10 dots in this tens frame.</b> Write 10 next to the first tens frame.</p> <p>Guide the pupils to continue to count the dots in the next tens frame to find 10. Write 10 next to the second tens frame. Guide pupils to count the dots in the incomplete tens frame to find 5. Write 5 next to the third tens frame.</p> <p>Guide the pupils in getting the total number of dots in the tens frames by counting by 10s and 1s. Call on a pupil to write 25 beside the tens frame.</p>	<table><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table>	●	●	●	●	●	●	●	●	●	●	<table><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table>	●	●	●	●	●	●	●	●	●	●	<table><tr><td>●</td><td>●</td><td>●</td><td></td><td></td></tr><tr><td>●</td><td>●</td><td></td><td></td><td></td></tr></table>	●	●	●			●	●				 <b>Homework</b> <ol style="list-style-type: none"><li>Write <u>C</u> for circle, <u>R</u> for rectangle, <u>T</u> for triangle. <div></div></li><li>Write the numbers from 45 to 57. <div></div></li><li>Write the numbers from 58 to 70. <div></div></li></ol>
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 <b>Pupil Activities</b> “You do.”	<p><b>Classwork</b></p> <p>( page 1) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>																																	


# TEACHER'S GUIDE WEEK 1, DAY 2


Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.


<b>Topics</b> Measurement, Operations , Whole numbers	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• count up to 70</li> <li>• read and write time to the hour</li> <li>• write the missing number in a pattern</li> </ul>	<b>Pupil Activity Book</b>  Classwork page 2
<b>Activities</b> <ul style="list-style-type: none"> <li>• Reading time to the hour</li> <li>• Finding the missing number in a pattern</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Pupil's activity books</li> <li>2. Pupil's exercise books</li> </ol>	



Week 1, Day 2


**Write the time.**



\_\_\_\_\_


\_\_\_\_\_


\_\_\_\_\_


\_\_\_\_\_


\_\_\_\_\_


\_\_\_\_\_



**Write the missing number.**


⑦ 15, 16, 17, 18, \_\_, 20

⑧ 24, \_\_, 26, \_\_, 28, 29







⑨ 37, 38, 39, \_\_, 41, 42

⑩ 41, 42, 43, \_\_, 45, 46

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• <i>Good morning, children. Today we will learn more about reading and telling time and finding the missing number in a number pattern.</i></li> <li>• <i>Before we begin our new lesson, let's review how to count to 70.</i></li> <li>• Use a counting game to guide the pupils in counting by 1s from 0 to 70.</li> </ul>
	<b>Development (20 min.)</b> <i>We just counted by 1s to 70. Now I will teach you to read, tell and write time and also how to find and write the missing number in a pattern.</i> <b>Activity 1: Measurement: Time</b> <b>Demonstrate:</b> <i>First I am going to show you how to read, tell and write time.</i> Draw or display an analogue clock face showing 1 o'clock. Point at the long hand. <b><i>This is the long hand. It is called the minute hand.</i></b> Point at the short hand. <b><i>This is the short hand. It is called the hour hand.</i></b> <b><i>When the minute hand is pointing at 12 and the hour hand is pointing at 1, it is one o'clock.</i></b> Write 1 o'clock on the board.

	Change the hour hand to point at 2, while the minute hand remains at 12. <b><i>The hour hand is now pointing at 2, while the minute hand is still pointing at 12. It is now 2 o'clock.</i></b> Write 2 o'clock on the board. Change the hour hand to point at 3, 4, 5 etc, while the minute hand remains at 12 and read the time as 3 o'clock, 4 o'clock, 5 o'clock etc. Write the time in words on the board. e.g. 3 o'clock.
 <b>Teacher and Pupil Activities</b> <i>"We do."</i>	<b>Guide:</b> <i>Now let us read, tell and write the time.</i> Draw an analogue clock face on the board showing 1 o'clock. Point at the long hand. <b><i>Which hand is this?</i></b> (minute hand). <b><i>How do you know?</i></b> (It is the long hand). Point at the short hand. <b><i>Which hand is this?</i></b> (hour hand). <b><i>How do you know?</i></b> (It is the short hand). <b><i>What number is the minute hand pointing at?</i></b> (12) <b><i>What number is the hour hand pointing at?</i></b> (1) <b><i>What is the time?</i></b> (1 o'clock) Write 1 o'clock on the board. Draw another analogue clock face on the board showing 7 o'clock. Point at the long hand. <b><i>Where is the minute hand pointing at?</i></b> (12) Point at the short hand. <b><i>Where is the hour hand pointing at?</i></b> (7). <b><i>What is the time?</i></b> (7 o'clock).

## TEACHER'S GUIDE WEEK 1, DAY 2

 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 2: Operations: Number patterns</b></p> <p><b>Demonstrate:</b> <i>Now I will find and write the missing number in a number pattern.</i></p> <p>Write the number pattern 6, 7, 8, __, 10, 11, 12 on the board.</p> <p><i>Here is a pattern that starts at 6 and has a number missing. I see that each number is 1 more than the number before it. To find the missing number, I can write the next number after 8 or the number that is 1 more than 8 which it is 9.</i> Write 9 in the blank space.</p> <p><i>Now I will count all the numbers. 6, 7, 8...12.</i> Touch each number as you count. <i>Therefore, the missing number is 9.</i></p>		<p><b>Homework</b></p> <p><b>Write the missing numbers</b></p> <ol style="list-style-type: none"> <li>6, 7, __, 9, 10</li> <li>12, 13, 14, 15, __, 17</li> <li>25, 26, 27, __, 29, 30</li> <li>29, 30, 31, __, 33, 34</li> <li>45, 46, 47, 48, __, 50</li> </ol>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>Now let's find and write the missing number in a pattern.</i></p> <p>Write the number pattern 12, 13, __, 15, 16, 17 on the board.</p> <p><i>By how many are the numbers increasing? (1) What is 1 more than 13? (14). What number is missing? (14)</i></p> <p>Write 14 on the blank line.</p> <p><i>Let us read the numbers together.</i> Read the numbers on the board with the pupils. <i>12, 13...17.</i></p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p>	
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 2) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>	<p><b>Notes:</b></p>	
	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>Today we learned how to read, write and tell time to the hour as well as finding the missing number in a pattern.</li> <li>Draw an analogue clock showing 3 o'clock, 5 o'clock, 9 o'clock and 12 o'clock. Guide the pupils to read, write and tell the time.</li> </ul>		

# TEACHER'S GUIDE WEEK 1, DAY 3

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Equivalence, Whole numbers	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>balance addition statements to make equal</li> <li>fill missing numbers in a number pattern</li> <li>represent numbers in a place value table</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil's activity books</li> <li>Pupil's exercise books</li> </ol> <b>Pupil Activity Book</b> Classwork page 3
<b>Activities</b> <ul style="list-style-type: none"> <li>Balance addition statements to make equal</li> <li>Filling missing numbers in a pattern</li> <li>Identifying place value of digits</li> </ul>		

Week 1, Day 3

Write the missing number.

28, 29, 30, \_\_, 32, 33

44, 45, 46, \_\_, 48, 49

---

Count by 1s. Write the next numbers.

41, 42, \_\_, \_\_, \_\_, \_\_, \_\_

53, 54, \_\_, \_\_, \_\_, \_\_, \_\_

---

Balance to make equal.

8 + \_\_ = 2 + 7    6 + \_\_ = 5 + 4

8 + 1 = \_\_ + 4    \_\_ + 2 = 6 + 1

---

Fill in the chart.

32	Tens	Ones	47	Tens	Ones

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will find missing and next numbers in number patterns and balance addition problems. Before we begin our new lesson, let's review finding the place value of numbers.</li> <li>Write 46, 27, 30, 45 and 63 on the board above a place-value chart with columns for tens and ones.</li> </ul> <div> <div>46</div> <table> <tr><td>Tens</td><td>Ones</td></tr> <tr><td></td><td></td></tr> </table> </div> <div> <div>27</div> <table> <tr><td>Tens</td><td>Ones</td></tr> <tr><td></td><td></td></tr> </table> </div> <div> <div>30</div> <table> <tr><td>Tens</td><td>Ones</td></tr> <tr><td></td><td></td></tr> </table> </div>	Tens	Ones			Tens	Ones			Tens	Ones		
Tens	Ones												
Tens	Ones												
Tens	Ones												

45







Tens	Ones

63

Tens	Ones

	<p>Here is a pattern that starts at 19 and has a number missing. I see that each number is 1 more than the number before it. To find the missing number, I can write the next number that is 1 more than 20. This number is 21.</p> <p>Write 21 in the blank space. Now I am going to read all the numbers. 19, 20, 21...24.</p> <p>Write the number pattern 62, 63, 64, __, 66, 67 and repeat the process and identify 65 as the missing number in a pattern.</p>
	<p>Guide: Now let's find and write the missing number in a pattern. Write the number pattern 62, 63, __, 65, 66, 67 on the board.</p> <p>By how many are the numbers increasing? (1) What is 1 more than 63? (64). What number is missing? (64)</p> <p>Write 64 on the blank line.</p> <p>Now, we are going to read the numbers in the pattern. Read the numbers with the pupils. 62, 63, 64...67.</p>
<b>Teacher and Pupil Activities</b> <i>"We do."</i>	
	<p>Activity 2: Operations: Number patterns</p> <p><b>Demonstrate:</b> Now I will show you how to find and write the next numbers.</p> <p>Write 25, 26, 27, __, __, __.</p> <p>I will count by 1s from 25. 25, 26, 27, 28, 29, 30. The next numbers are 28, 29, 30. Write the numbers in the blank spaces.</p>
<b>Teacher Activities</b> <i>"I do."</i>	

# TEACHER'S GUIDE WEEK 1, DAY 3

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let us complete a sequence of numbers.</p> <p>Write 37, 38, 39, ___, ___, ___.</p> <p><i>Let us count by 1s from 37 to 45 to find the next numbers.</i> ( 37, 38, 39, 40, 41, 42, 43, 44, 45). <i>What are the next numbers?</i> (40, 41, 42). Write the numbers in the blank spaces</p>		<p><b>Conclusion (5 min.)</b> <b>Review</b></p> <p><i>Today we learnt how to find the missing and next numbers in number patterns and balancing addition equations. Before we begin our new lesson, let's review naming the place value of each number in a 2-digit number.</i></p> <p>Write the numbers 38 and 36 on the board. Ask the pupils to show you which numbers are ones and which ones are tens.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Equivalence</b></p> <p><b>Demonstrate:</b> Now I will show you how to <i>balance an addition statement. Remember that an addition statement is a number sentence that includes an equal sign.</i></p> <p>Write <math>3 + 5 = 4 + \underline{\quad}</math> on the board.</p> <p><i>I look for the side of the statement with no numbers missing and work out that side first. I remember from my addition facts that 3 plus 5 is equal to 8. Both sides of the addition statement must add up to 8. So now I know that the other side of the addition statement must also equal 8. Now 4 plus some number is equal to 8. I can count on from 4 until I reach 8 and pay attention to how many numbers I count from the numbers that are there after 4 to 8. Count on showing the numbers you are counting with your fingers. ( 5, 6, 7, 8). Because I counted 4 numbers, the missing number is 4.</i></p> <p>Write 4 in the blank space. Point to the addition statement. <i>3 plus 5 equals 8. 4 plus 4 equals 8. Therefore 3 plus 5 equals 4 plus 4. Fill in the missing number in the problem.</i></p>		<p><b>Homework</b></p> <p><b>Write the missing numbers</b></p> <ol style="list-style-type: none"> <li>32, 33, 34, ___, 36, 37</li> <li>59, ___, 61, 62, 63, 64</li> <li>28, 29, 30, ___, 32, 33</li> </ol> <p><b>Balance to make equal</b></p> <ol style="list-style-type: none"> <li><math>2 + 3 = 1 + \underline{\quad}</math></li> <li><math>6 + 1 = 4 + \underline{\quad}</math></li> </ol>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Let's balance an addition statement. Write <math>2 + 4 = 1 + \underline{\quad}</math> on the board. <i>What part of the equation should we solve first?</i> (the side with all its numbers—the left hand side).</p> <p><i>What is 2 plus 4?</i> (6) <i>What must the right side equal?</i> (6). <i>So 1 plus a number is equal to 6. Count from 1 to 6. How many numbers did you count?</i> (5) <i>What is the missing number?</i> (5) Write 5 on the blank. <i>What is 2 + 4?</i> (6). <i>What is 1+5?</i> (6). <i>Therefore, 2 + 4 = 1 + 6.</i></p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>	
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 3). Today we learnt how to Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>		

# TEACHER'S GUIDE WEEK 1, DAY 4

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Equivalence, Whole numbers, Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>find place value of numbers.</li> <li>use place value to compare number quantities</li> <li>Add by counting on.</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil's exercise books</li> <li>Pupil's activity books</li> </ol> <b>Pupil Activity Book</b> Classwork page 4
<b>Activities</b> <ul style="list-style-type: none"> <li>Comparing numbers</li> <li>Work out addition problems</li> <li>Finding place value of numbers</li> </ul>		

Week 1, Day 4

Balance to make equal.

①  $5 + \_ = 6 + 2$     ②  $3 + \_ = 2 + 5$

---

Fill in the chart.

③ 50    

Tens	Ones

    ④ 39    

Tens	Ones

---



Circle the greater number.

⑤ 23    17    ⑥ 21    24

---

Work out.





⑦  $9 + 5 = \_$     ⑧  $15 + 7 = \_$   
 ⑨  $14 + 5 = \_$     ⑩  $21 + 2 + 4 = \_$



	<h2>Introduction (5 min.)</h2> <h3>Review</h3> <ul style="list-style-type: none"><li>• <i>Good morning, children. Today we will review balancing equations, adding numbers by counting on.</i></li><li>• <i>Before we begin our new lesson, let's review balancing addition equations.</i></li><li>• Write <math>7 + 1 = 4 + \underline{\quad}</math>, <math>2 + 3 = \underline{\quad} + 1</math>, <math>\underline{\quad} + 5 = 6 + 2</math></li><li>• Ask pupil to balance the addition statements and write the answers on the board.</li></ul>								
	<h2>Development (20 min.)</h2>								
 <b>Teacher Activities</b> <i>"I do."</i>	<p><i>We just reviewed balancing addition statements. Now we will practice using place value to write and compare 2 numbers.</i></p> <p><b>Activity 1: Whole numbers: Place value</b></p> <p><b>Demonstrate:</b> Draw a place value chart and beside it write 35.</p> <table border="1"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr></tbody></table> <p>35</p> <p><i>I know that in 35 there are 3 tens which equal 30 and 5 ones which is equal to 5.</i> Write 3 in the tens column and 5 in the ones column in the place value chart.</p> <table border="1"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td>3</td><td>5</td></tr></tbody></table>	Tens	Ones			Tens	Ones	3	5
Tens	Ones								
Tens	Ones								
3	5								

 <b>Teacher and Pupil Activities</b> "We do."	<b>Guide:</b> Now let us write numbers in the place value charts.  Draw a place value chart and beside it write 63. Which number is in the tens place? (6). Which number is in the ones place? (3). Call one pupil to write the numbers in the place value chart on the board.								
 <b>Teacher Activities</b> "I do."	<b>Activity 2: Whole numbers: Comparing numbers</b>  <b>Demonstrate:</b> Write the following on the board. Circle the greater number between 16 and 27. I am going to find out which of these two numbers is greater than the other. Greater means bigger. I want to find out which of these two numbers is bigger than the other. Write the following on the board. <div> <div> 16 <table border="1"> <tr> <td>Tens</td> <td>Ones</td> </tr> <tr> <td>1</td> <td>6</td> </tr> </table> </div> <div> 27 <table border="1"> <tr> <td>Tens</td> <td>Ones</td> </tr> <tr> <td>2</td> <td>7</td> </tr> </table> </div> </div> <p>16 has 1 ten. 27 has 2 tens. 2 is more than 1, therefore, 27 is bigger than 16. Circle 27.</p>	Tens	Ones	1	6	Tens	Ones	2	7
Tens	Ones								
1	6								
Tens	Ones								
2	7								
 <b>Teacher and Pupil Activities</b> "We do."	<b>Guide:</b> Write the following on the board. Circle the number that is greater between 45 and 28. Let's compare 45 and 28 and tell which of the two numbers is greater. We are going to use the place value chart.								




# TEACHER'S GUIDE WEEK 1, DAY 4


 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p>Draw 2 place value charts.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>45</p> <table border="1" style="border-collapse: collapse;"> <thead> <tr> <th style="padding: 2px 10px;">Tens</th> <th style="padding: 2px 10px;">Ones</th> </tr> </thead> <tbody> <tr> <td style="height: 30px;"></td> <td style="height: 30px;"></td> </tr> </tbody> </table> </div> <div style="text-align: center;"> <p>28</p> <table border="1" style="border-collapse: collapse;"> <thead> <tr> <th style="padding: 2px 10px;">Tens</th> <th style="padding: 2px 10px;">Ones</th> </tr> </thead> <tbody> <tr> <td style="height: 30px;"></td> <td style="height: 30px;"></td> </tr> </tbody> </table> </div> </div> <p><i>How many tens are in 45?</i> (4). <i>How many ones are in 45?</i> (5). Fill the first place value chart with the numbers.</p> <p><i>How many tens are in 28?</i> (2). <i>How many ones are in 28?</i> (8). Fill the second place value chart with the numbers.</p> <p><i>Which number has more tens, 45 or 28?</i> (45). <i>Therefore 45 is greater than 28.</i></p>	Tens	Ones			Tens	Ones		
Tens	Ones								
Tens	Ones								
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Addition</b></p> <p><b>Demonstrate:</b> <i>Now I will show you how to find a sum of numbers.</i></p> <p>Write <math>18 + 6 = \underline{\quad}</math> on the board.</p> <p><i>I will count on 6 numbers that come after 18.</i> (Hold up your fingers as you count the numbers) <b>19, 20, 21, 22, 23, 24.</b> <i>Six numbers after 18 takes us to 24.</i> Write 24 in the blank space.</p>								
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Write <math>9 + 7 = \underline{\quad}</math> on the board.</p> <p><i>Now let's add 9 + 7. Let us count on 7 steps from 9.</i> (Hold up your fingers as you count the numbers with the pupils) 9-10-11-12-13-14-15-16. <i>7 steps from 9 takes us to 16. Therefore, 9 plus 7 equals 16.</i></p> <p>Write 16 after the equals sign.</p>								
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 4) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>								

	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>• <i>Today we reviewed how to compare numbers, add numbers and write numbers in a place value chart. Now you can show me what you have learned.</i></li> <li>• Write <math>18 + 3 = \underline{\quad}</math>, <math>7 + 5 = \underline{\quad}</math>, <math>12 + 5 = \underline{\quad}</math>.</li> <li>• Choose 3 pupils to come to the board to work out the addition statements.</li> </ul>
	<p><b>Homework</b></p> <p><b>Balance to make equal</b></p> <ol style="list-style-type: none"> <li><math>2 + 3 = 1 + \underline{\quad}</math></li> <li><math>\underline{\quad} + 5 = 6 + 4</math></li> </ol> <p><b>Add</b></p> <ol style="list-style-type: none"> <li><math>16 + 5 = \underline{\quad}</math></li> <li><math>18 + 7 = \underline{\quad}</math></li> <li><math>23 + 6 = \underline{\quad}</math></li> <li><math>11 + 5 = \underline{\quad}</math></li> <li><math>3 + 1 + 35 = \underline{\quad}</math></li> </ol>
<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>	

# TEACHER'S GUIDE WEEK 1, DAY 5

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Whole numbers, Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• compare numbers from 0 to 30.</li> <li>• break numbers to subtract</li> <li>• Work out addition problems with 2 or 3 numbers and sums up to 30 (without regrouping).</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Pupil's activity books</li> <li>2. Pupil's exercise books</li> </ol> <b>Pupil Activity Book</b>  Classwork page 5
<b>Activities</b> <ul style="list-style-type: none"> <li>• Comparing numbers</li> <li>• Breaking numbers to subtract</li> <li>• Addition of three numbers</li> </ul>		


Week 1, Day 5

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Circle the greater number.

26 18    24 30

---

Circle the lesser number.

23 21    19 25

---

Count by 1s. Write the next numbers.

48, 49, \_\_, \_\_, \_\_,

66, 67, \_\_, \_\_, \_\_.

---

Subtract by breaking apart.





15 - 9 = \_\_    13 - 7 = \_\_

15 - \_\_ - \_\_ = 6    13 - \_\_ - \_\_ = 6






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Add

7 + 12 + 3 = \_\_    7 + 9 + 7 = \_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• Good morning, children. Today we will review comparing numbers between 0 and 30, breaking apart numbers to subtract them from other numbers up to 15, and adding 2 or 3 numbers.</li> <li>• Before we begin our new lesson, let's review counting by 1s to 70.</li> <li>• Ask a volunteer to lead the class in counting by 1s from 1 to 70.</li> </ul>	 <b>Teacher and Pupil Activities</b> "We do."	<b>Guide:</b> Write the following on the board. 38, 29. Circle the greater number. <i>Let's compare 38 and 29 using place value. What place do we look at first when we are comparing numbers? (Tens). How many tens are in 38? (3). How many tens are in 29? (2). Which number is greater? (38). How do you know? (Because 38 has more tens than 29). Circle 38. Therefore 38 is greater than 29. Which number is less? (29)</i>
 <b>Teacher Activities</b> "I do."	<b>Development (20 min.)</b> <i>We just counted to 70 by 1s. Each number was 1 greater than the number before it. Now we will use what we know to compare 2 numbers.</i> <b>Activity 1: Whole numbers: Comparing numbers</b> <b>Demonstrate:</b> I am going to compare the numbers 14 and 23. Write 14 and 23 on the board. Each of these numbers has 2 digits, so I can compare the digits in the tens place first. Because 23 has a 2 in its tens place, or 2 tens, and 14 has a 1 in its tens place, the greater number is 23 because 2 is greater than 1. 23 is greater than 14 or 14 is less than 23.	 <b>Teacher Activities</b> "I do."	<b>Activity 2: Operations: Subtraction</b> <b>Demonstrate:</b> Now I will break a number to subtract it and find the difference. Write $12 - 7 = \underline{\quad}$ on the board. <i>The difference is the answer to a subtraction problem. If I remember what 12 minus 7 is, I can just write the answer. If I don't know the answer, I can break 7 into 2 and 5. I use 2 and 5 because 2 is in the ones place in the number 12. Sometimes it is easy to break numbers down when subtracting because some numbers are easier to work with when subtracting.</i>


# TEACHER'S GUIDE WEEK 1, DAY 5


	<p><i>Then I can subtract 2 and then subtract 5. I know that 12 minus 2 is equal to 10 and that 10 minus 5 is equal to 5. So, 12 minus 7 is equal to 5.</i></p> <p>Write <math>12 - 2 - 5 = 5</math> below the original statement. Then write 5 on the blank line in the original statement.</p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let's subtract 11 minus 3</p> <p>Write <math>11 - 3 = \underline{\quad}</math> on the board.</p> <p><i>Let us subtract the numbers by breaking them apart. What number are we going to break so as to subtract? (3).</i></p> <p><i>What are we going to have after we break 3? (1 and 2).</i></p> <p><i>Why do we break it into 1 and 2? (Because 11 has a 1 in the ones place).</i></p> <p>Write <math>11 - 1 - 2 =</math> below the original equation.</p> <p><i>What is 11 minus 1? (10). We then subtract 2 from 10. What is 10 minus 2? (8).</i></p> <p>Write <math>11 - 1 - 2 = 8</math></p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Addition</b></p> <p><b>Demonstrate:</b> Now I will add 3 numbers.</p> <p>Write <math>6 + 13 + 4 = \underline{\quad}</math> on the board.</p> <p><i>I can make a 10 by adding 6 plus 4. I can then add 10 plus 13, which is equal to 23. The sum is 23.</i></p> <p>Write <math>6 + 13 + 4 = 6 + 4 + 13 = 10 + 13 = 23</math></p> <p>Write 23 on the original statement.</p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Let's practice adding three numbers.</p> <p>Write <math>8 + 9 + 8 = \underline{\quad}</math> on the board.</p> <p><i>Is it possible to make a 10 with these numbers? (No) How can you use doubles? (by adding the 8s) What is 8 plus 8? (16) What do we add next? (16 plus 9) Let's count up 9 more than 16: 17-18-19-20-21-22-23-24-25. What is 16 plus 9? (25)</i></p> <p>Write 25 on the blank line.</p>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 5) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>

	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>Today we reviewed how to compare numbers, how to break apart numbers to subtract, and how to add 3 numbers to find a sum. Now you can show me what you have learned.</li> <li>Write <math>11 - 5 = \underline{\quad}</math>. Ask the pupils to work out by breaking a part the numbers.</li> </ul>
	<p><b>Homework</b></p> <p><b>Circle the lesser number</b></p> <p>1. 16 11                      2. 45 36                      3. 18 12</p> <p>4. 14 25                      5. 66 70</p> <p><b>Subtract by breaking apart</b></p> <p>6. <math>11 - 6 = 11 - 1 - 5 = \underline{\quad}</math></p> <p>7. <math>14 - 7 = 14 - 4 - \underline{\quad} = \underline{\quad}</math></p> <p>8. <math>15 - \underline{\quad} - \underline{\quad} = 9</math></p> <p><b>Note:</b> Remember to give the weekly test!</p>
<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p>	
<p><b>Notes:</b></p>	

# TEACHER'S GUIDE WEEK 2, DAY 1

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Whole numbers, Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• identify numbers 51 to 70</li> <li>• count by 1s up to 70</li> <li>• break numbers to subtract with minuends up to 19</li> <li>• solve written addition problems with sums up to 30</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Pupil's activity books</li> <li>2. Pupil's exercise books</li> </ol>
<b>Activities</b> <ul style="list-style-type: none"> <li>• Identifying numbers 51 to 70</li> <li>• Rote counting by 1s from 51 to 70 and from 70 to 51</li> <li>• Breaking numbers to subtract</li> <li>• Solving written addition problems</li> </ul>	<b>Pupil Activity Book</b>  Classwork page 6	


Week 2, Day 1

Write the numbers from 60 to 51.

① 60 \_\_\_\_\_

Write the numbers from 70 to 61.

② 70 \_\_\_\_\_

Work out.

③  $8 + 7 = \underline{\quad}$       ④  $7 + 5 = \underline{\quad}$





Subtract by breaking apart.

⑤  $14 - 8 = \underline{\quad}$       ⑥  $13 - 5 = \underline{\quad}$








$14 - 4 - 4 = \underline{\quad}$        $13 - 3 - 2 = \underline{\quad}$

⑦  $12 - 8 = \underline{\quad}$       ⑧  $15 - 6 = \underline{\quad}$

$12 - \underline{\quad} - \underline{\quad} = 4$        $15 - \underline{\quad} - \underline{\quad} = 9$

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• <i>Good morning, children. Today we will learn how to count by 1s from 51 to 70 and from 70 back to 51. We will also break numbers apart to subtract and we will learn a new way to add.</i></li> <li>• <i>Before we begin our new lesson, let's review writing and identifying the numbers from 0 to 70.</i></li> <li>• Write the numbers 28, 44, 36 on the board and ask the pupils to say them. Say the numbers 17, 22, 48, 6 and ask a few pupils to write them on the board.</li> </ul>		<b>Teacher and Pupil Activities</b> <i>"We do."</i>	<p><b>Guide:</b> Now let's practice counting by 1s from 51 to 70. I'll start and you continue: 51-52-53-54 . . . 70. (Have pupils continue counting until they reach 70 as you point at the numbers).</p> <p><b>Next,</b> we'll count by 1s from 70 back to 51. I'll start and you continue: 70-69-68-67 . . . 51 (Have pupils continue counting until they reach 51 as you point at the numbers).</p>
	<b>Development (20 min.)</b> <b>Activity 1: Whole Numbers: Counting</b> <b>Demonstrate:</b> Write the numbers from 51 to 70 on the board. <i>I will now count by 1s from 51 to 70 as I point at the numbers.</i> Count by 1s from 51 to 70, saying each number clearly and slowly as you point at the numbers. <i>I will now count back by 1s from 70 to 51.</i> Count back by 1s from 70 to 51, saying each number clearly and slowly as you point at the numbers.		<b>Teacher Activities</b> <i>"I do."</i>	<p><b>Activity 2: Operations: Subtraction</b></p> <p><b>Demonstrate:</b> Now I will show you how to break apart numbers to subtract and find the difference.</p> <p>Write <math>13 - 8 = \underline{\quad}</math> on the board.</p> <p><i>If I know the difference of 13 minus 8, I can just write the answer. If I don't know the difference, I can break 8 into 3 and 5 to make the problem easier. I use 3 and 5 because 3 is in the ones place in the number 13. Now I subtract 13 minus 3 minus 5. I know that 13 minus 3 is equal to 10 . The number 10 is an easy number to work with. 10 minus 5 is equal to 5. So, 13 minus 8 is equal to 5.</i></p> <p>Write <math>13 - 3 - 5 = 5</math> below the original problem on the board. Then write 5 on the blank line in the original problem.</p>

# TEACHER'S GUIDE WEEK 2, DAY 1

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Next let's practice subtracting by breaking apart numbers. Write <math>12 - 4 = \underline{\quad}</math> on the board.</p> <p><i>How can we break apart 4 to make the problem easier?</i> (2 and 2) <i>Why do we use 2 and 2?</i> (Because 2 is in the ones place in the number 12) <i>What is 12 minus 2?</i> (10) <i>What is 10 minus 2?</i> (8) <i>What is 12 minus 4?</i> (8) Write <math>12 - 2 - 2 = 8</math> on the board below the original equation. Then write 8 on the blank.</p>	 <p><b>Homework</b></p> <p><b>Add</b></p> <p>1. <math>6 + 9 = \underline{\quad}</math>                      2. <math>8 + 5 = \underline{\quad}</math></p> <p>3. <math>15 + 3 = \underline{\quad}</math>                      4. <math>17 + 6 = \underline{\quad}</math></p> <p><b>Subtract by breaking apart</b></p> <p>5. <math>12 - 5 = 12 - 2 - \underline{3} = \underline{\quad}</math></p> <p>6. <math>11 - 7 = 11 - 1 - \underline{\quad} = \underline{\quad}</math></p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Addition</b></p> <p><b>Demonstrate:</b> Now I will show you a way to add numbers. Write <math>9 + 7 = \underline{\quad}</math> on the board.</p> <p><i>I will count on 7 steps from 9 to get the answer.</i> (Hold one finger up at a time as you count) 10, 11, 12, 13, 14, 15, 16. <i>Seven steps from 9 takes us to 16.</i> Write 16.</p> <p><i>So <math>9 + 7 = 16</math></i></p>	
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Let's practice our new way of adding.</p> <p>Write <math>8 + 3 = \underline{\quad}</math> on the board.</p> <p><i>We are going to count on from 8 three times to get the answer. Let's count up 3 more than 8: (8-9-10-11). What is 8 plus 3?</i> (11)</p> <p>Write 11 on the blank line.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 6) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>	
	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>• Today we learned how to count by 1s and 10s from 51 to 70 and back from 70 to 51. We broke apart numbers for subtraction and added by counting forward. Now you can show me what you have learned.</li> <li>• Have a pupil lead the class in counting by 1s from 70 to 1.</li> </ul>	

# TEACHER'S GUIDE WEEK 2, DAY 2

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Counting, Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• Solve written addition problems with regrouping</li> <li>• count backwards from 70 to 1</li> <li>• break numbers to subtract</li> <li>• solve addition problems using regrouping</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Pupil's exercise books</li> <li>2. Pupil's activity books</li> <li>3. Hundreds chart</li> </ol>
<b>Activities</b> <ul style="list-style-type: none"> <li>• Counting backwards from 70 - 1</li> <li>• Writing missing numbers in backward sequences</li> <li>• Breaking numbers to subtract.</li> </ul>	<b>Pupil Activity Book</b> Classwork page 7	

Week 2, Day 2

Count by ones. Write the next numbers.

21, 22, 23, \_\_\_\_\_

42, 43, 44, \_\_\_\_\_

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Subtract by breaking apart.

15 - 8 = \_\_\_\_\_ 17 - 9 = \_\_\_\_\_

15 - \_\_\_\_\_ = \_\_\_\_\_ 17 - \_\_\_\_\_ = \_\_\_\_\_

18 - 9 = \_\_\_\_\_ 13 - 5 = \_\_\_\_\_

18 - \_\_\_\_\_ = 9 13 - \_\_\_\_\_ = 8

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Add by regrouping.

18 + 12 = \_\_\_\_\_ 17 + 13 = \_\_\_\_\_ 16 + 14 = \_\_\_\_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• Good morning, children. Today we will learn how to count to and from 70. We will also break numbers to subtract and add using regrouping.</li> <li>• Before we begin our new lesson, let's review how to count backwards by 1s from 70.</li> <li>• Ask pupils use the hundreds chart to count 1s from 70 to 1.</li> </ul>		<b>Guide:</b> Now we'll find the next numbers in a sequence. Write 36, 37, 38, _____, _____, _____. Let us count from 36 and write the next numbers in the sequence. Count with the pupils from 35 to 40 and ask them to name the missing numbers. Write the numbers in the blank spaces. 36, 37, 38, 39, 40, 41.
	<b>Development (20 min.)</b>		<b>Activity 2: Operations: Subtraction</b> <b>Demonstrate:</b> Now I will show you how to break apart numbers to subtract. Write $13 - 6 = \underline{\hspace{2cm}}$ on the board. If I know the difference of 13 minus 6, I can just write the answer. If I don't know the difference, I can break 6 into 3 and 3 to make the problem easier. I use 3 and 3 because 3 is in the ones place in the number 13. Now I subtract 13 minus 3 minus 3. I know that 13 minus 3 is equal to 10. The number 10 is an easy number to work with. 10 minus 3 is equal to 7. So, 13 minus 6 is equal to 7. Write $13 - 3 - 3 = 7$ below the original problem on the board. Then write 7 on the blank line in the original problem.
	<b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> I will find the missing number in a number patterns. Write the number pattern 49, 48, 47, _____, _____, _____ on the board. Here is a pattern that starts at 49 and has some numbers missing. I see a pattern with each number 1 less than the number before it. To find the missing number, I count backwards from 49: 49, 48, 47, 46, 45, 44, 43, 42, 41. Write 46, 45 and 44 on the blank line.		
<b>Teacher Activities</b> "I do."		<b>Teacher Activities</b> "I do."	





# TEACHER'S GUIDE WEEK 2, DAY 2

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let's practice subtracting by breaking apart numbers. Write <math>11 - 6 = \underline{\quad}</math> on the board. <i>How can we break apart 6?</i> (1 and 5) <i>Why do we use 1 and 5?</i> (Because 1 is in the ones place in the number 11). <i>What is 11 minus 1?</i> (10) <i>What is 10 minus 5?</i> (5) Write <math>11 - 1 - 5 = \underline{\quad}</math> on the board below the original equation. Then write 5 on the blank line.</p>		<p><b>Conclusion (5 min.)</b> <b>Review</b> <i>Today we have learned how to count to and from 70. We have also learned how to break numbers to subtract and add using regrouping.</i> Have a pupil lead the class in counting by ones with pupils from 5 to 45 and backwards from 58 to 17.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Addition</b> <b>Demonstrate:</b> Now I will show you how to add 2-digit numbers using regrouping. Write <math>18 + 15</math> on the board vertically. <i>I first add the ones. I know 8 plus 5 is 13. We regroup 13 as 1 ten and 3 ones. I write 3 in the ones place, then we regroup the 1 ten to the tens place by writing 1 above 1 in 17.</i> <i>Next I add all the numbers in the tens place. <math>1 + 1 + 1 = 3</math></i> The sum is 33.</p>		<p><b>Homework</b> <b>Subtract by breaking apart</b> 1. <math>14 - 8 = 14 - 4 - 4 = \underline{\quad}</math> 2. <math>13 - 7 = 13 - \underline{\quad} - \underline{\quad} = \underline{\quad}</math> 3. <math>15 - 9 = 15 - \underline{\quad} - \underline{\quad} = \underline{\quad}</math> <b>Add</b> 4. <math display="block">\begin{array}{r} 17 \\ + 15 \\ \hline \end{array}</math> 5. <math display="block">\begin{array}{r} 18 \\ + 13 \\ \hline \end{array}</math> 6. <math display="block">\begin{array}{r} 16 \\ + 16 \\ \hline \end{array}</math></p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Write <math>18 + 14</math> vertically on the board. <i>Let's add together. What do we add first?</i> (the ones) <i>What is 8 plus 4?</i> (12). <i>What do we do with 12?</i> (Regroup it) <i>How do we regroup it</i> (As 1 ten and 2 ones). <i>What do we write in the ones place in the sum?</i> (2) <i>What do we do with the ten?</i> (Write a 1 above the 1 in 18) Write a 2 in the ones place in the sum and a 1 above the 1 in 18. <i>Let's add the tens. What is 1 plus 1 plus 1?</i> (3) <i>What is the sum?</i> (32) Write the 3 to form the sum of 32.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p>	
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b> ( page 7) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>	<p><b>Notes:</b></p>	

# TEACHER'S GUIDE WEEK 2, DAY 3

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Number patterns, Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• solve word problems involving addition.</li> <li>• find the missing number in a pattern.</li> <li>• count forward and backwards by tens.</li> </ul>	<b>Pupil Activity Book</b>  Classwork page 8
<b>Activities</b> <ul style="list-style-type: none"> <li>• Writing missing numbers in forward and backward number patterns</li> <li>• Select addition to solve word problem.</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Pupil's exercise books</li> <li>2. Pupil's activity books</li> </ol>	


Week 2, Day 3

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Count by ones. Write the next numbers.

① 36, 37, 38, \_\_, \_\_, \_\_, \_\_, \_\_

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Write the missing number.

② 0, 10, \_\_, 30, 40    ③ 50, 40, \_\_, 20, 10

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Work out.

④ There are 3 boys and 2 girls in Kamau's family. How many children are there in Kamau's family?    ⑤ Clara read 4 books last week. She read 2 more books this week. How many books has Clara read?

\_\_ boys + \_\_ girls = \_\_ children    \_\_ books + \_\_ books = \_\_ books

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Subtract by breaking apart.





⑥  $14 - 6 =$     ⑦  $16 - 8 =$

$14 - \underline{\quad} = 8$      $16 - \underline{\quad} = 8$





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Add by regrouping.

⑧  $\begin{array}{r} 15 \\ + 15 \\ \hline \end{array}$     ⑨  $\begin{array}{r} 11 \\ + 19 \\ \hline \end{array}$

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• Good morning, children. Today we will break numbers to subtract, add by regrouping and solve word problems. Before we begin our new lesson, let's review writing the missing number in a pattern. Write 44, 43, 42, __, __, __ the board. Have pupils write the missing number in their copy books.</li> </ul>		<b>Guide:</b> Let us count by 10s together from 10 to 70 and back from 70 to 10. I will start then you continue. (10, 20, 30...70). (70, 60, 50...10). <b>Now let's practice finding the missing number in a pattern.</b> Write the number pattern 10, 20, 30, 40, __, 60 on the board. <b>Do the numbers increase or decrease?</b> (increase) <b>By how many are the numbers increasing?</b> (10) <b>What is 10 more than 40?</b> (50) <b>What number is missing?</b> (50) Write 50 on the blank line.
	<b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> Now I will show you how to count by 10s from 10 to 70 and back. Write the numbers from 10 to 70. Count each number as you point at the numbers. Count back from 70 to 10. Write the number pattern 60, 50, __, 30, 20, 10 on the board. <b>Here is a sequence that starts at 60 and has a number missing. To find the missing number I count backwards by 10s from 60: 60, 50, 40, 30, 20, 10.</b> Write 40 on the blank line.		<b>Activity 2: Operations: Addition</b> <b>Demonstrate:</b> Write 'I have 2 pens. Jane has 4 pens. How many pens do we have altogether?'. <b>Now I will read a problem and then solve it: I have 2 pens. Jane has 4 pens. How many pens do we have altogether?.</b> <b>The key word is "altogether." When I read or hear the word "altogether" it means addition.</b> Write "altogether" on the board. <b>So I add 2 plus 4, which equals 6. We have 6 pens.</b> Write the following on the board. $2 + 4 = 6$ pens Point at $2 + 4 = 6$ <b>This is a number sentence.</b>


## TEACHER'S GUIDE    WEEK 2, DAY 3


 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide: Now let's solve a word problem:</b></p> <p>Write the following on the board. Simon has 5 books. Peter has 4 books. How many books do Peter and Simon have altogether?</p> <p><i>Do we add or subtract to find the answer? (add) What phrase tells us that we should use addition? (altogether) What is 5 plus 4? (9) How many books do they have altogether? (9)</i></p> <p>Write <math>5 + 4 = 9</math> and “9 books” on the board.</p> <p><i>What is our number sentence for this problem? (<math>5 + 4 = 9</math>)</i></p>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 8) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>
	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <p><i>Today we learned how find the missing number in a pattern and solve word problems.</i></p> <p>Write 50, 40, 30, ____, ____.</p> <p>Ask pupils to work out the number patterns.</p>

	<p><b>Homework</b></p> <p><b>Write the missing number</b></p> <p>1. 0, 10, 20, ____, 40, 50</p> <p>2. 60, ____, 40, 30, 20, 10</p> <p>3. 30, 40, ____, 60, 70</p> <p><b>Add</b></p> <p>4. <math display="block">\begin{array}{r} 18 \\ + 18 \\ \hline \end{array}</math></p> <p>5. <math display="block">\begin{array}{r} 16 \\ + 19 \\ \hline \end{array}</math></p> <p>6. <math display="block">\begin{array}{r} 17 \\ + 18 \\ \hline \end{array}</math></p>
<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>	

# TEACHER'S GUIDE WEEK 2, DAY 4

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Operations, Whole numbers	<ul style="list-style-type: none"> <li>Select subtraction to solve word problems</li> <li>Order numbers from the least to the greatest using place value</li> </ul>	<b>Pupil Activity Book</b>  Class work page 9
<b>Activities</b> <ul style="list-style-type: none"> <li>Select subtraction to solve word problems</li> <li>Order numbers from least to greatest</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil exercise books</li> <li>Pupil activity book</li> </ol>	
<b>Objectives</b> By the end of the lesson, pupils will be able to:		


Week 2, Day 4

Count by ones. Write the next numbers.

1 53, 54, 55, \_\_, \_\_, \_\_, \_\_

Write the missing number.

2 0, 10, 20, \_\_, 40

Work out.







3 John had 15 balls. He lost 3 balls. How many balls are left? 4 There are 9 birds on a tree. 3 birds fly away. How many birds are left?

\_\_ balls + \_\_ balls = \_\_ balls \_\_ birds + \_\_ birds = \_\_ birds



Work out.



5  $8 + 8 =$  \_\_ 6  $5 + 5 =$  \_\_

Order from least to greatest.






7    8   

\_\_, \_\_, \_\_, \_\_, \_\_, \_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will learn how to order numbers from least to greatest and solve word problems.</li> <li>Before we begin our new lesson, let's review adding doubles.</li> </ul> <p>Say the following basic fact and let the pupils give you the answers automatically.</p> <p><math>1 + 1 =</math> __, <math>2 + 2 =</math> __, <math>3 + 3 =</math> __, <math>4 + 4 =</math> __</p> <p><math>5 + 5 =</math> __, <math>6 + 6 =</math> __, <math>7 + 7 =</math> __, <math>8 + 8 =</math> __</p>
	<b>Development (20 min.)</b> <b>Activity 1: Operations: Subtraction</b> <b>Demonstrate:</b> I am now going to show you how to solve word problems. <p>Write: "I have 8 pens. I give 3 pens to Irene. How many pens do I have left? <b>I will first read the problem.</b> Read the problem on the board. Write 8 and 3 on the board as you read the problem on the board as you say the problem. Use real materials and give out to one pupil.</p> <p><b>When I give out some pens, I have less left. So I will subtract. The subtraction problem is 8 minus 3. Therefore the number of pens left are 5.</b> Write <math>8 - 3 = 5</math> and 5 pens on the board.</p>


	<b>Teacher and Pupil Activities</b> <b>"We do."</b> <p><b>Guide:</b> Write the following on the board: Jane has 7 sweets. She ate 4 sweets. How many sweets does she have left?</p> <p><b>Now let's solve a word problem:</b> Jane had 7 sweets. She ate 4 sweets. How many sweets does she have left?</p> <p>Write 8 and 4 on the board as you say the word problem.</p> <p><b>Will there be more or less than 7 sweets after Jane eats the sweets?</b> (Less) <b>Should we use addition or subtraction?</b> (Subtraction) <b>What is the subtraction problem?</b> (7 minus 4) <b>How many sweets are left?</b> (3 Sweets)</p> <p>Write <math>7 - 4 = 3</math> and "3 sweets" on the board.</p>
	<b>Activity 2: Whole numbers: Comparing numbers</b> <b>Demonstrate:</b> Now I am going to show you how to order numbers from least to greatest. <p>Write 15, 4, 18 on the board.</p> <p><b>I am going to compare the numbers 15, 4 and 18. 4 has only one digit so it is the least. I can compare the digits in the tens place 15 and 18. They both have the number 1 in the tens place, so we compare the numbers in the ones place value. 8 is greater than 5 so 18 is the greatest number.</b></p> <p>Write 4, 15, 18</p> <p><b>I have ordered the numbers from the least to the greatest.</b></p> <p><b>From least to greatest, the order is 4, 15, and 18.</b></p>


## TEACHER'S GUIDE WEEK 2, DAY 4

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let us order number cards from the least to the most. Show pupils number cards for 33, 25 and 16 in that order. <i>We can use place value to order the cards. Each of these numbers has 2 digits. Which place do we compare first? (Tens) Which number has the smallest digit in the tens place? (16) Which has the biggest digit in the tens place? (33). Therefore, 16 is the smallest number and 33 is the largest number. 25 is in the middle.</i> Write the following on the board. 16, 25, 33. <i>I have arranged the numbers from the least to the greatest.</i> Now I want a pupil to come and arrange the numbers from the greatest to the least. Call on a pupil. 33, 25, 16.</p>	 <p><b>Homework</b></p> <p><b>Write the next numbers</b></p> <ol style="list-style-type: none"> <li>28, 29, 30, _____, _____, _____</li> <li>46, 47, 48, _____, _____, _____</li> <li>19, 20, 21, _____, _____, _____</li> </ol> <p><b>Order from least to greatest</b></p> <ol style="list-style-type: none"> <li>16, 9, 25</li> <li>11, 28, 21</li> <li>46, 13, 27</li> </ol>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b> ( page 9) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>
	<p><b>Conclusion (5 min.)</b> <b>Review</b></p> <ul style="list-style-type: none"> <li>Today we learned how to solve word problems and order numbers from least to greatest. Now you can show me what you have learned.</li> <li>Write 24, 35 and 29 on the board, ask the pupils to order the numbers from the least to the greatest.</li> </ul>	

# TEACHER'S GUIDE WEEK 2, DAY 5

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topic</b> Operations, Whole numbers, Geometry	<b>Objective</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>• write the next numbers in forward and backward number pattern</li> <li>• order numbers from the least to the greatest</li> <li>• identify and draw a circle</li> </ul>	<b>Preparation</b> Before class, draw a circle
<b>Activities</b> <ul style="list-style-type: none"> <li>• Write next numbers in forward and backward number patterns</li> <li>• Order numbers from the least to the greatest</li> <li>• Identify and draw a circle</li> </ul>		<b>Learning Resources</b> <ol style="list-style-type: none"> <li>1. Circle shape cut outs</li> <li>2. Pupil exercise books</li> </ol>
		<b>Pupil Activity Book</b>  Classwork page 10


Week 2, Day 5

Write the next number.

① 56, 57, \_\_\_\_      ② 64, 63, \_\_\_\_

---

Order from least to greatest.

① 18 25 23      ② 30 21 24

\_\_\_\_, \_\_\_\_, \_\_\_\_

---

Work out.

①  $6 + 6 =$  \_\_\_\_      ②  $10 + 10 =$  \_\_\_\_


③  $9 - 5 =$  \_\_\_\_      ④  $7 + 3 =$  \_\_\_\_



⑤  $8 - 4 =$  \_\_\_\_      ⑥  $12 + 6 =$  \_\_\_\_

---

Draw 3 circles.







⑦


	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>• Good morning, children. Today we will learn how to order numbers and write the next numbers. We will also identify and draw circles.</li> <li>• Before we begin our new lesson, let's review simple addition problems, or "facts," and subtraction facts. Ask pupils to give the sum of <math>3+3=</math> ____, <math>5-2=</math> ____, <math>4+5=</math> ____, <math>6-3=</math> ____ orally.</li> </ul>
	<b>Development (20 min.)</b> <b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> I am now going to show you how to find the next number of a given number. write 25, 26 ____,      44, 45 ____,      13, 14 ____. To find the next number I am now going to count from the first number. I will start with 25. 25, 26, 27. So the next number is 27. Write 27 in the blank space
<b>Teacher Activities</b> <i>"I do."</i>	

	In the next pattern I will start with 44. 44, 45, 46. The next number is 46. Write 46 in the blank space.  In the next pattern, I will start with 13: 13, 14, 15. The next number is 15. Write 15 in the blank space.
 <b>Teacher and Pupil Activities</b> <i>"We do."</i>	<b>Guide:</b> Now let's say the next number after each number that we hear. I'll start. When I point to you, you say the next number. Start by saying 50 and pointing to a pupil who says 51. Then point to another pupil to say 52 and continue pointing to different pupils to name numbers until they reach 70.
 <b>Teacher Activities</b> <i>"I do."</i>	<b>Activity 2: Whole numbers: Comparing numbers</b> <b>Demonstrate:</b> Show pupils number cards for 45, 18, and 15, in that order. I can use place value to order the cards from the least to the greatest. All the numbers 45, 18 and 15 have 2 digits. I will compare 45, 15 and 18 by looking at their tens place first. There are 4 tens in 45 and 1 ten in both 18 and 15, so 45 is greater than 15 and 18. Next I compare 18 and 15, they both have 1 in the tens place so I check the ones place. 5 is less than 8. Next I order the numbers from the least to the greatest. Write the following on the board. 15, 18, 45.



## TEACHER'S GUIDE WEEK 2, DAY 5

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Show pupils number cards for 46, 38 and 16 in that order.</p> <p><i>We can use place value to order the numbers in the cards from the least to the greatest. Each of these numbers has 2 digits. Which place do we compare first? (Tens) Which number has the least digit in the tens place? (16) Which number has the greatest digit in the tens place? (46) Therefore, number 16 is the least, and 46 is the greatest. 38 is in the middle.</i></p> <p>Write the following on the board. 16, 38, 46</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Geometry: Circles</b></p> <p><b>Demonstrate:</b> <i>I will now remind you how a circle looks like.</i></p> <p>Draw a circle and point at the circle saying circle several times. “<i>This is a circle</i>”.</p> <p>Write the word circle below the diagram.</p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>Now we will identify circles.</i></p> <p>Draw a circle and ask the pupils. <i>Which shape is this</i> (Circle).</p> <p>Ask the pupils to name the objects that have the circle shape.</p>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 10) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>
	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>• <i>Today we learned how to order numbers and write the next numbers.</i></li> <li>• Write the numbers 39, 42, 51, 24. Ask the pupils to order the numbers using place values from the greatest to the least.</li> </ul>

	<p><b>Homework</b></p> <p><b>Order from least to greatest</b></p> <p>1. 14, 7, 28 _____</p> <p>2. 11, 10, 30 _____</p> <p>3. 46, 20, 18 _____</p> <p><b>Add or subtract</b></p> <p>4. <math>7 + 8 =</math> _____</p> <p>5. <math>9 - 4 =</math> _____</p> <p>6. <math>6 + 7 =</math> _____</p> <p>7. <math>8 - 6 =</math> _____</p> <p><b>Note:</b> Remember to give the weekly test!</p>
<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>	

# TEACHER'S GUIDE WEEK 3, DAY 1

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Operations, Measurement	<ul style="list-style-type: none"> <li>count to find the missing numbers</li> <li>add numbers</li> <li>complete patterns</li> <li>read and tell time in half hour</li> </ul>	<b>Learning Resources</b> 1. Pupil's activity books
<b>Activities</b> <ul style="list-style-type: none"> <li>Count to find the missing numbers</li> <li>Count by 2s using dots</li> <li>Complete patterns</li> <li>Read and write time</li> </ul>	<b>Preparation</b> Before class, draw the following item on the board for use in the sections listed: <ul style="list-style-type: none"> <li>Clock (Introduction, We Do)</li> </ul>	<b>Pupil Activity Book</b> Classwork page 11
<b>Objectives</b> By the end of the lesson, pupils will be able to:		

Week 3, Day 1

Write the next numbers.

63, 64, \_\_\_\_ 54, 55, \_\_\_\_

Work out.

4 + 3 = \_\_\_\_ 8 - 2 = \_\_\_\_

9 - 4 = \_\_\_\_ 6 + 4 = \_\_\_\_

Write the time.











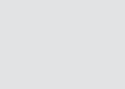
\_\_\_\_ \_\_\_\_

Count and write the number of small rectangles.

\_\_\_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will learn how to count by groups of dots and how to tell time to half an hour. Before we begin our new lesson, let's review addition and subtraction facts up to 10. Ask pupils addition and subtraction facts, such as <math>5 + 4 = \underline{\quad}</math>, <math>7 - 3 = \underline{\quad}</math>, <math>9 - 5 = \underline{\quad}</math>, <math>7 + 7 = \underline{\quad}</math>, <math>4 + 8 = \underline{\quad}</math>.</li> </ul>	<b>Teacher and Pupil Activities</b> <i>"We do."</i>	<b>Guide:</b> Let us now find the number that comes next after a given number. Write 61, 62____, 58, 59____, 51, 52____, To find the next number we are going to count from the given number by 1s forward. Let us count from 61 three steps forward (61, 62, 63). What is the next number? (63). Write the number in the blank space. Let us count from 51 three steps forward (51, 52, 53). What is the next number? (53). Write the number in the blank space. Let us count from 58 three steps forward (58, 59, 60). What is the next number? (60). Write the number in the blank space.
	<b>Development (20 min.)</b> <b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> I am now going to show you how to find the number that comes next after a given number. Write 45, 46____, 32, 33____, 58, 59____. To find the next number I am now going to count from the given number by 1s forward. I will start with 58, 59, ____ . 58, 59, 60. So the number is 60. Write 60 in the blank space. I then go to 32, 33, ____ . 32, 33, 34. The number is 34. Write 34 in the blank space. Now I will go to 45, 46, ____ . 45, 46, 47. The number is 47. Write 47 in the blank space.	<b>Teacher Activities</b> <i>"I do."</i>	<b>Activity 2: Measurement: Time</b> <b>Demonstrate:</b> Show pupils an analog clock or a drawing of a clock face that reads 3:30. A clock face has two hands, the minute hand and the hour hand. The hour hand is the short hand (show the hand) and the minute hand is the long hand (show the hand). When the minute hand is pointing at 6, it has moved halfway round the clock, it is half past. At half past, the hour hand points between two numbers. Show the clockface. In this clock face, the hour hand is between 3 and 4 and the minute hand is at 6. The time is half past 3. Write half past 3 on the board.

# TEACHER'S GUIDE WEEK 3, DAY 1

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>Let’s read the time on this clock.</i></p> <p>Show pupils a clock or draw a clock face on the board that shows 9:30. <i>Between which 2 numbers is the hour hand pointing?</i> (9 and 10) <i>What number is the minute hand pointing?</i> (6) <i>What is the time?</i> (Half past 9).</p> <p>Write half past 9 on the board.</p>	 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 11) Ask pupils to complete the exercise in class. Move around the classroom and review their work as they complete the exercises.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Number patterns</b></p> <p><b>Demonstrate:</b> <i>Now I will show you a way to count the groups of dots.</i></p> <p style="text-align: center;">  </p> <p><i>The first group has 2 dots. The second group has <math>2+2=4</math> dots. The third group has <math>4+2=6</math> dots. The last group has <math>6+2=8</math> dots.</i></p> <p>Write 2 below the group of 2 dots, 4 below the group of 4 dots, 6 below the group of 6 dots. Draw 8 dots next to the 6 dots and write 8 below it.</p> <p><i>I can count the dots by 2s. 2, 4, 6, 8.</i></p>		<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li>• <i>Today we learned how to count by groups of dots and how to tell time to half an hour.</i></li> <li>• Lead the class in counting by 10s from 1 to 70 several times.</li> </ul>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Draw the following on the board.   </p> <p><i>Now let’s look at this group of dots</i></p> <p>Point to the first group of dots. <i>How many dots are these?</i> (5). Write 5 next to the dots.</p> <p>Point to the second group of dots. <i>How many dots are these?</i> (10). Write 10 next to the dots.</p> <p>Point to the third group of dots. <i>How many dots are these?</i> (15). Write 15 next to the dots.</p> <p><i>Let us count by 5s. 5, 10, 15.</i></p> <p>Write 5, 10, 15 on the board.</p> <p><b>Who can come and draw the next set of dots on the board.</b> Call on a pupil. They should draw 4 rows of 5 dots (20 dots).</p> <p>Write the pattern 5, 10, 15, 20 below the dots. <b>This is our pattern. 5, 10, 15, 20. To get the next number, we count by 5s.</b></p>		<p><b>Homework</b></p> <p><b>Write the next numbers</b></p> <p>1. 25, 26 ____      2. 46, 47 ____</p> <p>3. 29, 30 ____      4. 36, 37 ____</p> <p>5. 19, 20 ____      6. 17, 18 ____</p> <p><b>Add or subtract</b></p> <p>7. <math>5 + 5 =</math> ____      8. <math>9 - 7 =</math> ____</p> <p>9. <math>9 + 6 =</math> ____      10. <math>7 - 6 =</math> ____</p> <p><b>Draw a clock face showing:</b></p> <p>11. Half past 1      12. Half past 5</p>
<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p>			
<p><b>Notes:</b></p>			

# TEACHER'S GUIDE WEEK 3, DAY 2

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Measurement, Operations  <b>Activities</b> <ul style="list-style-type: none"> <li>Writing missing numbers in number sequences</li> <li>Breaking apart numbers to add</li> <li>Tell time to half hour</li> </ul>	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>write missing numbers in number patterns</li> <li>break numbers to add</li> <li>tell time to half hour</li> </ul>	2. Pupil's exercise books  <b>Pupil Activity Book</b> Classwork page 12
	<b>Learning Resources</b> 1. Pupil's activity books	

Week 3, Day 2

Write the next numbers.

① 0, 10, 20, \_\_\_\_ ② 40, 50, 60, \_\_\_\_

Add by breaking apart.

③  $7 + 6 = \underline{\quad}$  ④  $9 + 4 = \underline{\quad}$   
 $7 + 3 + 3 = \underline{\quad}$   $9 + 1 + 3 = \underline{\quad}$

⑤  $9 + 8 = \underline{\quad}$  ⑥  $8 + 5 = \underline{\quad}$   
 $9 + \underline{\quad} + \underline{\quad} = \underline{\quad}$   $8 + \underline{\quad} + \underline{\quad} = \underline{\quad}$

Write the time.

⑦ \_\_\_\_ ⑧ \_\_\_\_








Order from least to greatest.

⑨ \_\_\_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will learn how to write the missing number in patterns up to 70, tell time to the half hour and break numbers to add.</li> <li>Before we begin our new lesson, let's review how to order numbers.</li> <li>Show pupils number cards for 16, 8, 46, 65 and 27. Ask pupils to order the number cards from least to greatest.</li> </ul>
	<b>Development (20 min.)</b>  <b>Activity 1: Operations: Number patterns</b> Write the sequences 20, 30, 40, ____ 40, 30, 20, ____ <b>Demonstrate:</b> I will now count by 10s from 10 to 70 to help me find the missing numbers in the first pattern. Count by 10s from 10 to 70 saying each number clearly and slowly. 10, 20, 30, 40, 50, 60, 70 The missing number is 50. Now I will count backwards from 50 to 10 to help me find the missing number in the second pattern. 50, 40, 30, 20, 10. The missing number is 10. Write 10, 20, 30, 40, 50 and 40, 30, 20, 10.
 <b>Teacher Activities</b> "I do."	

 <b>Teacher and Pupil Activities</b> "We do."	<b>Guide:</b> Let's practice finding the missing number in a pattern.  Write the number pattern 50, 40, 30, ____, 10, 0 on the board.  Do the numbers increase or decrease? (Decrease) By how many are the numbers decreasing? (10) What is 10 less than 30? (20) What is 10 more than 10? (20) Which number is missing? (20) Write 20 on the blank space.
 <b>Teacher Activities</b> "I do."	<b>Activity 2: Operations: Addition</b> <b>Demonstrate:</b> Now I will show you how to break up numbers in addition problems. Write $9 + 7 = \underline{\quad}$ on the board. There are a number of ways to add these 2 numbers. One way is to break 7 into two numbers. Write $9 + \underline{\quad} + \underline{\quad}$ . I need to break 7 into a number that when added to 9 will make 10. That number is 1. $9 + 1 = 10$ . Write $9 + 1 + \underline{\quad}$ . I have broken the number 7 into 1 and another number. I need to figure out what the other number is. I know that 1 plus 6 equals 7. Therefore, the other number is 6. Write $9 + 1 + 6$ . I know that 9 plus 1 is 10. Write $9 + 1 = 10$ . I also know that $10 + 6 = 16$ . Write $10 + 6 = 16$ . Therefore, $9 + 7 = 16$ . Write $9 + 7 = 16$

# TEACHER'S GUIDE WEEK 3, DAY 2

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let's add by breaking apart. Write <math>7 + 6 = \underline{\quad}</math> on the board. We are going to break apart 6 to solve this problem. First, I need to figure out what number when added to 7 will give me 10. What number when added to 7 will give me 10? (3). Write <math>7 + 3 + \underline{\quad}</math> on the board.</p> <p>I have broken 6 into 3 and another number. What number if added to 3 will give me 6? (3). Write <math>7 + 3 + 3 = \underline{\quad}</math> on the board.</p> <p>What is <math>7 + 3</math>? (10). What is <math>10 + 3</math>? (13). Therefore, <math>7 + 6</math> equals 13. Write <math>7 + 6 = 13</math>.</p>		<p><b>Conclusion (5 min.)</b> <b>Review</b></p> <ul style="list-style-type: none"> <li>Today we learned how to write the missing number in patterns up to 70, tell time to half past the hour and break numbers to add.</li> <li>Write 46, 48, 50, <u>    </u>, 54, 56 on the board. Guide the pupils to count by 2s to find the answer.</li> </ul>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Measurement: Time</b></p> <p><b>Demonstrate:</b> Show pupils a clock or a drawing of a clock face that reads 7:30.</p> <p>A clock face has two hands. We have the minute hand and the hour hand. The long hand is the minute hand and the short hand is the hour hand. When the minute hand is pointing at 6, it is half past the hour. The minute hand has moved half way around the clock. At half past the hour, the hour hand is pointing between two numbers.</p> <p>Point to the clock face on the board. The minute hand is pointing at 6. The hour hand is pointing between 7 and 8, therefore it is half past 7.</p> <p>Write the time half past 7 on the board.</p>		<p><b>Homework</b></p> <p><b>Order from least to greatest</b></p> <ol style="list-style-type: none"> <li>27, 36, 20 <u>                    </u></li> <li>18, 6, 40 <u>                    </u></li> <li>4, 18, 7 <u>                    </u></li> <li>46, 33, 17 <u>                    </u></li> </ol> <p><b>Add by breaking apart</b></p> <ol style="list-style-type: none"> <li><math>8 + 5 = 8 + 2 + 3 = \underline{\quad}</math></li> <li><math>9 + 6 = 9 + 1 + \underline{\quad} = \underline{\quad}</math></li> </ol> <p><b>Draw a clock face showing:</b></p> <ol style="list-style-type: none"> <li>Half past 10</li> <li>Half past 6</li> </ol>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let's try reading a clock together.</p> <p>Show pupils a clock or a drawing of a clock face that reads 3:30.</p> <p>Between which 2 numbers is the hour hand? (3 and 4) On what number is the minute hand? (6) If the minute hand is on the 6, What time is it? (Half past) Which hour has the hour hand passed? (3) What is the time shown by the clock? (Half past 3).</p> <p>Write half past 3 on the board.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>	
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 12) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>		

# TEACHER'S GUIDE WEEK 3, DAY 3

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topics</b> Operations	<b>Objectives</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>count by 2s from 0 to 70</li> <li>subtract by regrouping</li> <li>break apart numbers to add</li> </ul>	<b>Pupil Activity Book</b> Classwork page 13
<b>Activities</b> <ul style="list-style-type: none"> <li>Rote counting by 2s from 0 to 70</li> <li>Breaking apart numbers to add</li> <li>Subtract by regrouping</li> </ul>	<b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil's exercise books</li> <li>Pupil's activity books</li> </ol>	

Week 3, Day 3

Write the next numbers.

10, 20, 30, \_\_, \_\_, \_\_, \_\_

50, 52, 54, \_\_, \_\_, \_\_, \_\_

Add by breaking apart.

8 + 4 = \_\_      9 + 5 = \_\_

8 + \_\_ + \_\_ = \_\_      9 + \_\_ + \_\_ = \_\_

Work out.

24    25    26    30

- 15    - 6    - 8    - 14

\_\_\_\_\_

\_\_\_\_\_




\_\_\_\_\_

Trace the triangles.      Draw 3 triangles.

	<b>Introduction (5 min.)</b>  <b>Review</b> <ul style="list-style-type: none"> <li>Today we will learn to count by 2s, to add and to subtract by regrouping.</li> <li>Let's first review identifying triangles.</li> </ul> <p>Draw a triangle on the board. Remind pupils that a triangle has 3 sides and 3 corners.</p>	<b>Teacher and Pupil Activities</b> "We do."	<b>Guide:</b> Let's try finding the missing number in a number pattern.  Write the number pattern 18, 16, 14, __ on the board.  What number does the pattern start with (18). By how many is each number less than the number before it (2). So the missing number is 2 less than 14. So what is the missing number (12).  Write 12 on the blank line.  We can also find the missing number by counting by 2s. Let us count by 2s from 20. 20, 18, 16, 14, 12, 10. The number after 14 is 12.
<b>Teacher Activities</b> "I do."	<b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> I will find the missing number in a number pattern. Write the number pattern 30, 28, 26, __ on the board.  This pattern starts at 30 and has a number missing. Each number is 2 less than the number before it. The missing number is 2 less than 30, which is 28. I know that 26 less 2 is 24, so the missing number is 24.  Write 24 on the blank line.  I can also find the missing number by counting by 2s. Count 30, 28, 26, 24, 22, 20. The number after 26 in the pattern is 24.	<b>Teacher Activities</b> "I do."	<b>Activity 2: Operations: Addition</b> Now I will show you how to break up numbers in addition problems.  Write 8 + 4 = ____  <b>Demonstrate:</b> There are a number of ways to add these 2 numbers. One way is to break 4 into 2 and 2. I use 2 and 2 because I want to make a ten with the number 8. I know that 8 plus 2 is equal to 10. I know that 10 plus 2 is equal to 12. The sum is 12. Write 8 + 2 + 2 = 12 on the board below the original equation. Write 12 on the blank line in the original equation.





# TEACHER'S GUIDE WEEK 3, DAY 3

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide: Now let's add.</b> Write <math>7 + 4 = \underline{\quad}</math> on the board.</p> <p><b>Let's break 4 into 2 numbers. What numbers should we use?</b> (3 and 1) <b>Why do we use 3 and 1?</b> (Because we want to make a 10 with number 7). <b>So we broke this problem into 7 plus 3 plus 1. What is 7 plus 3?</b> (10) <b>What is 10 plus 1?</b> (11) <b>What is 7+4?</b> (11)</p> <p>Write <math>7 + 3 + 1 = 11</math> on the board below the original equation. Write 11 on the line in the original equation.</p>	<p><b>Let's subtract the ones. What is 13 minus 7?</b> (5)</p> $\begin{array}{r} 213 \\ 33 \\ - 17 \\ \hline 5 \end{array}$ <p>Write the 5 in the ones place in the difference. <math>- 17</math></p> <p><b>Let's subtract the tens. What is 2 minus 1?</b> (1)</p> $\begin{array}{r} 213 \\ 33 \\ - 17 \\ \hline 15 \end{array}$ <p>Write the 1 in the tens place to form 15. Therefore the difference is 15.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Subtraction</b> Write <math>23 - 9</math> vertically on the board.</p> <p><b>Demonstrate:</b> <i>There are not enough ones to subtract because I cannot take away 9 from 3. I remember that 1 ten is equal to 10 ones. I can regroup 1 of the tens as 10 ones. I cross out the 2 in 23 and replace the 2 tens with 1 ten. Then I cross out the 3 in 23 and replace the 3 ones with 13 ones. I have 1 ten and 13 ones.</i></p> <p>Cross out both digits in 23. Write 13 above the ones and 1 above the tens.</p> <p><b>Now I subtract the regrouped ones: 13 ones minus 9 ones equals 4 ones.</b></p> <p>Write the 4 in the ones place in the difference.</p> <p><b>I subtract the regrouped tens: 1 ten minus 0 tens equals 1.</b> Write the 1 in the tens place in the difference. <b>So, 23 minus 9 is equal to 1 ten and 4 ones, or 14.</b></p>	<p><b>Pupil Activities</b> “You do.”</p> <p><b>Classwork</b> ( page 13) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p> <p><b>Conclusion (5 min.)</b> <b>Review</b> <i>Today we learned how to count by 2s to add and to subtract by regrouping.</i></p> <p>Ask a volunteer to lead the class in counting by 2s from 2 to 70. Guide the pupils to repeat counting several times.</p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide: Now let's subtract.</b> Write <math>33 - 17</math> vertically on the board.</p> $\begin{array}{r} 33 \\ - 17 \\ \hline \end{array}$ <p><b>Are there enough ones to subtract?</b> (No) <b>How can we get enough ones to work out the solution?</b> (Regroup 1 ten as 10 ones) <b>Which numbers do we cross out?</b> (3 and 3 in 33) <b>What do we write above the 3 in tens?</b> (2) <b>What do we write above the 3 in ones?</b> (13)</p> <p>Cross out the 3 and 3 in 33, and write 13 above the 3 in the ones and 2 above the 3 in the tens.</p> $\begin{array}{r} 213 \\ 33 \\ - 17 \\ \hline \end{array}$	<p><b>Homework</b> <b>Add by breaking apart</b></p> <p>1. <math>7 + 5 = \underline{\quad}</math>      2. <math>9 + 6 = \underline{\quad}</math>  <math>7 + 3 + \underline{\quad} = \underline{\quad}</math>      <math>9 + \underline{\quad} + \underline{\quad} = \underline{\quad}</math></p> <p><b>Subtract</b></p> <p>3. <math>\begin{array}{r} 34 \\ - 9 \\ \hline \end{array}</math>      4. <math>\begin{array}{r} 25 \\ - 7 \\ \hline \end{array}</math>      5. <math>\begin{array}{r} 22 \\ - 8 \\ \hline \end{array}</math></p> <p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>

# TEACHER'S GUIDE WEEK 3, DAY 4

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topic</b> Operations  <b>Activities</b> <ul style="list-style-type: none"> <li>Number patterns</li> <li>Subtract with regrouping</li> <li>Balance equations</li> </ul>	<b>Objective</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>find the missing numbers in a number pattern</li> <li>subtract numbers with regrouping</li> <li>balance equations</li> </ul> <b>Learning Resources</b> <ol style="list-style-type: none"> <li>Pupil's exercise books</li> <li>Pupil's activity books</li> </ol>	<b>Pupil Activity Book</b>  Classwork page 14
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Week 3, Day 4

Write the missing number.

56, 58, \_\_, 62, 64

---

Write the next numbers.

20, 25, 30, 35, 40, \_\_, \_\_, \_\_





---

Subtract using regrouping.



30 - 17 ____	23 - 6 ____	28 - 19 ____	30 - 16 ____
--------------------	-------------------	--------------------	--------------------



---

Balance to make equal.






 +  =  + 

3 + 3 = 1 + \_\_\_\_      3 + 1 = 2 + \_\_\_\_

	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will learn how to subtract using regrouping and balance statements. Before we begin our new lesson, let's review counting by 2s to 70.</li> <li>Ask a volunteer to lead the class in counting by 2s from 2 to 70.</li> </ul>
	<b>Development (20 min.)</b>  <b>Activity 1: Operations: Number patterns</b>  <b>Demonstrate:</b> Now I will find and write the missing number in a pattern of numbers.  Write the number pattern 5, 10, 15, 20, ____ on the board, replacing 25 with a blank line.  <i>Here is a pattern that starts at 5 and has a number missing. I see that each number is 5 more than the number before it. To find the missing number, I can add 5 to the number 20, which is 25.</i>  <i>I can also count by 5s to get the missing number. 5, 10, 15, 20, 25. The missing number is 5.</i>  Write 25 on the blank line.

	<b>Teacher and Pupil Activities</b> <i>"We do."</i>  <b>Guide:</b> Let's try finding the missing number in a number pattern. Write the number pattern 38, 36, 34, ____, 30 on the board. <i>What number does the pattern start with (38). By how many is each number less than the number before it (2). So the missing number is 2 less than 34. So what is the missing number? (32).</i> Write 32 on the blank space. <i>We can also find the missing number by counting by 2s. Let us count backwards by 2s from 40 to 30. 40, 38, 36, 34, 32, 30. The number after 34 is 32.</i>
	<b>Teacher Activities</b> <i>"I do."</i>  <b>Activity 2: Operations: Subtraction</b> Write 40 - 25 vertically on the board. <b>Demonstrate:</b> There are not enough ones to subtract because I cannot take away 5 from 0. I remember that 1 ten is equal to 10 ones. I can regroup 1 of the tens as 10 ones. I cross out the 4 in 40 and replace the 4 tens with 3 tens. Then I cross out the 0 in 40 and replace the 0 with 10 ones. I have 3 tens and 10 ones. Cross out both digits in 40. Write 3 above the 4 and 10 above the 0. <i>Now I subtract the regrouped ones: 10 minus 5 equals 5.</i> Write the 5 in the ones place in the difference. <i>I subtract the regrouped tens: 3 minus 2 equals 1. Write the 1 in the tens place in the difference. So, 40 minus 25 is equal to 1 ten and 5 ones, or 15.</i>

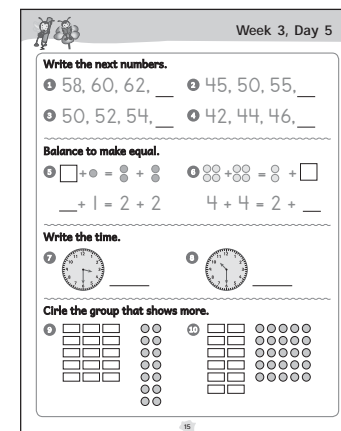
# TEACHER'S GUIDE WEEK 3, DAY 4

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Now let's subtract. Write <math>25 - 9</math> vertically on the board.</p> $\begin{array}{r} 25 \\ - 9 \\ \hline \end{array}$ <p><i>Are there enough ones to subtract? (No) How can we get enough ones to work through the solution? (Regroup 1 ten as 10 ones) Which numbers do we cross out? (2 and 5 in 25) What do we write above the 5 in ones? (15) What do we write above the 2 in tens? (1)</i></p> <p>Cross out the 2 and 5 in 25, and write 15 above the 5 in the ones and 1 above 2 in the tens.</p> <p><i>Let's subtract the ones. What is 15 minus 9? (6)</i></p> <p>Write the 6 in the ones place in the difference. <i>Let's subtract the tens. What is 1 minus 0? (1) Write the 1 in the tens place to form 16. Therefore the difference is 16.</i></p>	 <p><b>Pupil Activities</b> “You do.”</p> <p><b>Classwork</b> ( page 14) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Equivalence</b></p> <p><b>Demonstrate:</b> Now I will balance a math statement. Remember that a math statement is a number sentence that includes an equal sign.</p> <p>Write <math>5 + 2 = 3 + \underline{\quad}</math> on the board.</p> <p><i>This statement needs us to add . I look for the side of the statement with no numbers missing and solve that side first. I remember from my addition facts that 5 plus 2 is equal to 7. So now I know that the other side of the equation must also equal 7. 3 plus some number is equal to 7. I can count on from 3 until I reach 7 and pay attention to how many numbers I count: 4, 5, 6, 7. Because I counted 4 numbers, the missing number is 4. I could have also thought about number families to remember what to add to 3 to make 7. Either way, the answer is 4.</i></p> <p>Write 4 on the blank space</p> <p><i>I have balanced the equation. Both sides are now equal to 7.</i></p>	 <p><b>Conclusion (5 min.)</b> <b>Review</b></p> <ul style="list-style-type: none"> <li>Today we learned how to subtract using regrouping and balance statements. Now you can show me what you have learned.</li> <li>Draw a group of 5 rectangles and a group of 6 circles on the board. Guide the pupils to compare using the terms more or less.</li> </ul> <p><b>Homework</b></p> <p><b>Subtract</b></p> <div> <div>1. <math>\begin{array}{r} 22 \\ - 7 \\ \hline \end{array}</math></div> <div>2. <math>\begin{array}{r} 30 \\ - 15 \\ \hline \end{array}</math></div> <div>3. <math>\begin{array}{r} 25 \\ - 6 \\ \hline \end{array}</math></div> <div>4. <math>\begin{array}{r} 42 \\ - 26 \\ \hline \end{array}</math></div> </div> <p><b>Balance to make equal</b></p> <div> <div>5. <math>\begin{array}{c} \bullet \bullet \\ \bullet \end{array} + \begin{array}{c} \bullet \bullet \\ \bullet \end{array} = \begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \end{array} + \begin{array}{c} \bullet \end{array}</math></div> <div><math>3 + 3 = 5 + \underline{\quad}</math></div> <div>6. <math>\begin{array}{c} \bullet \bullet \\ \bullet \bullet \end{array} + \begin{array}{c} \bullet \\ \bullet \end{array} = \begin{array}{c} \bullet \bullet \\ \bullet \end{array} + \begin{array}{c} \bullet \bullet \\ \bullet \end{array}</math></div> <div><math>4 + 2 = 3 + \underline{\quad}</math></div> </div>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> Let's try solving an equation together.</p> <p>Write <math>5 + 3 = 4 + \underline{\quad}</math> on the board.</p> <p><i>What is 5 plus 3? (8) So the other side must also equal 8. What number do we add to 4 to get 8? (4) What is the missing number? (4)</i></p> <p>Write 4 on the blank line. Then write <math>8 = 8</math> below the equation and emphasize that the sides are equal.</p>	<p><b>Evaluation</b> Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.</p> <p><b>Notes:</b></p>











# TEACHER'S GUIDE WEEK 3, DAY 5

Subject	Class	Date	Time	Roll	Duration
Mathematics					30 min.

<b>Topic</b> Measurement, Operations, Whole numbers	<ul style="list-style-type: none"> <li>tell time to the hour and half hour</li> <li>find the missing numbers in a pattern.</li> </ul>	<b>Learning Resources</b> 1. Pupil's exercise books 2. Pupil's activity books
<b>Activities</b> <ul style="list-style-type: none"> <li>Using groups to compare quantities</li> <li>Finding the missing number in a pattern</li> <li>Telling time to the hour and half hour</li> </ul>	<b>Preparation</b> Before class, draw the following items on the board for use in the sections listed: <ul style="list-style-type: none"> <li>3 clocks (Introduction)</li> <li>Group with 2 rows of 10 rectangles and a group with 4 rows of 5 circles (I Do; then revise for We Do and Conclusion)</li> </ul>	<b>Pupil Activity Book</b> Step 6: page 15
<b>Objective</b> By the end of the lesson, pupils will be able to: <ul style="list-style-type: none"> <li>determine the greater number using groups.</li> </ul>		



	<b>Introduction (5 min.)</b> <b>Review</b> <ul style="list-style-type: none"> <li>Good morning, children. Today we will review how to use groups to compare numbers, balance statements and tell time.</li> <li>Before we begin our new lesson, let's review how to tell time to the hour.</li> <li>Draw a clock showing 3 o'clock on the board. Ask the pupils to tell the time and review the hour hand and the minute hand.</li> </ul>		<b>Guide:</b> Let's practice finding the missing number in a pattern.  Write the number pattern 50, 40, 30, __, 10, 0 on the board.  Do the numbers increase or decrease? (Decrease) By how many are the numbers decreasing? (10) What is 10 less than 30? (20) What is 10 more than 10? (20) Which number is missing? (20) Write 20 on the blank space.
	<b>Development (20 min.)</b> <b>Activity 1: Operations: Number patterns</b> <b>Demonstrate:</b> I will find the missing number in a number pattern. Write the number pattern 26, 24, 22, __ on the board.  This pattern starts at 26 and has a number missing. Each number is 2 less than the number before it. The missing number is 2 less than 22, which is 20. I know that 22 less 2 is 20, so the missing number is 20.  Write 20 on the blank line.  I can also find the missing number by counting by 2s. 30, 28, 26, 24, 22, 20. The number after 22 is 20.		<b>Activity 2: Whole numbers: Comparing numbers</b> <b>Demonstrate:</b> I want us to find out which objects are more or less. I will draw 2 groups. Let's see if I drew more rectangles or circles. <div> </div> Draw a group with 4 rows of 5 rectangles and a group with 4 rows of 4 circles.  I can count by 5s to find the number of rectangles 5-10-15-20. There are 20 rectangles. I can add the number of circles in each row to find the total number of circles. 4 + 4 = 8, 8 + 4 = 12, 12 + 4 = 16. There are 16 circles. 20 is more than 16, so the rectangles are more.  Circle the group with rectangles.

 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>I will draw 2 more groups.</i></p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">   </div> <p>Draw 4 rows of 5 dots and 3 rows of 3 squares.</p> </div> <p><i>Let us count by 5s to find the number of dots (5, 10, 15, 20). Let us count by 3s to find the number of squares. (3, 6, 9, 12, 15). Which group has more? (the dots)</i></p> <p>Circle the dots.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 3: Operations: Equivalence</b></p> <p><b>Demonstrate:</b> <i>Now I will balance a statement. Remember that a statement is a number sentence that includes an equal sign.</i></p> <p>Write <math>4 + 3 = 2 + \underline{\quad}</math> on the board.</p> <p><i>This statement needs us to add. I look for the side of the statement with no numbers missing and solve that side first. I remember from my addition facts that 4 plus 3 is equal to 7. So now I know that the other side of the statement must also equal 7. 2 plus some number is equal to 7. I can count on from 2 until I reach 7 and pay attention to how many numbers I count: 3, 4, 5, 6, 7. Because I counted 5 numbers, the missing number is 5. I could have also thought about number families to remember what to add to 2 to make 7. Either way, the answer is 5.</i></p> <p>Write 5 on the line.</p> <p><i>I have balanced the equation. Both sides are now equal to 5.</i></p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>Let's try solving an equation together.</i></p> <p>Write <math>3 + 2 = 1 + \underline{\quad}</math> on the board.</p> <p><i>What is 3 plus 2? (5) So the other side must also equal 5. What number do we add to 1 to make 5? (4) What is the missing number? (4)</i></p> <p>write <math>3 + 2 = 1 + 4</math>.</p>
 <p><b>Teacher Activities</b> “I do.”</p>	<p><b>Activity 4</b></p> <p><b>Demonstrate:</b> Show pupils a clock or a drawing of a clock face that reads 7:30.</p> <p><i>A clock face has two hands. We have the minute hand and the hour hand. The long hand is the minute hand and the short hand is the hour hand. When the minute hand is pointing at 6, it is half past the hour. The minute hand has moved half way around the clock. At half past the hour, the hour hand is pointing between two numbers.</i></p> <p>Point to the clock face on the board. <i>The minute hand is pointing at 6. The hour hand is pointing between 7 and 8, therefore it is half past 7.</i></p> <p>Write the time half past 7 on the board.</p>
 <p><b>Teacher and Pupil Activities</b> “We do.”</p>	<p><b>Guide:</b> <i>Now let's try reading a clock together.</i></p> <p>Show pupils a clock or a drawing of a clock face that reads 12:30.</p> <p><i>Between which 2 numbers is the hour hand? (12 and 1) On what number is the minute hand? (6) If the minute hand is on the 6, what is the time (half past) Which hour is it past? (12) What is the time shown by the clock? (half past 12)</i></p> <p>Write half past 12 on the board.</p>
 <p><b>Pupil Activities</b> “You do.”</p>	<p><b>Classwork</b></p> <p>( page 15) Ask pupils to complete the page in class. Move around the classroom and review their work as they complete the exercises.</p>
	<p><b>Conclusion (5 min.)</b></p> <p><b>Review</b></p> <ul style="list-style-type: none"> <li><i>Today we learned how to use groups to compare numbers, balance equations and tell time. Now you can show me what you have learned.</i></li> <li>Draw a group with 3 rows of 5 dots and a group with 2 rows of 6 dots on the board. Have pupils copy the groups in their copy books. Ask which group has more shapes. Use a show of hands to check if pupils are correct.</li> </ul>



## Homework

Write the next numbers

1. 28, 30, 32, 34, \_\_\_\_\_
2. 40, 45, 50, 55, \_\_\_\_\_
3. 16, 18, 20, 22, \_\_\_\_\_
4. 18, 16, 14, 12, \_\_\_\_\_

Balance to make equal

5.  $\begin{array}{c} \bullet \bullet \\ \bullet \end{array} + \begin{array}{c} \bullet \bullet \\ \bullet \bullet \end{array} = \begin{array}{c} \bullet \bullet \\ \bullet \bullet \end{array}$   
 $3 + 4 = 5 + \underline{\hspace{2cm}}$

6.  $\bullet + \begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array} = \begin{array}{c} \bullet \bullet \\ \bullet \end{array}$   
 $1 + 6 = 3 + \underline{\hspace{2cm}}$

Note: Remember to give the weekly test!

**Evaluation** Note where pupils make errors or have difficulties. Suggest how future lessons can address these problems.

**Notes:**



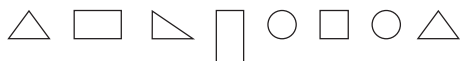
## Introduction

- Ask several pupils to count by 2s from 2 to 30 and from 30 to 2.

## Development

### Activity 1 Geometry: Rectangles

- Draw:** Draw the pattern of shapes as shown below on the board.



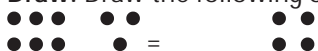
- Guide:** Work with 3 pupils to write R inside the rectangles.

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write the numbers 28, 20, 25 on the board.
- Demonstrate:** Show how to order them from least to greatest using place value. (20, 25, 28 → the tens are all 2, so we look at the ones. 0 is the least, followed by 5 then 8.)
- Guide:** Work with pupils to order numbers 17, 19, 11 from least to greatest on the board using place value (11, 17, 19).

### Activity 3 Operations: Equivalence

- Draw:** Draw the following on the board:



$$6 + 3 = \underline{\quad} + 4$$

- Demonstrate:** Show how to balance the statement as shown:
  - Count the number of dots on the left hand side to get 9.
  - Identify how many more dots you need to add to 4 to get 9. (5)



$$6 + 3 = \underline{5} + 4$$

- Draw:** Draw the following on the board:



$$7 + 3 = 5 + \underline{\quad}$$

- Guide:** Work with pupils to balance the statement on the board.



$$7 + 3 = 5 + \underline{5}$$

## Classwork

- Pupils to work out the activities on page 16.

## Conclusion

- Let 5 pupils come in front of class and give them the number cards; 46, 49, 37, 30, 16. Each pupil will stand for the number they are displaying. Have the five pupils ordered by the class from least to greatest.

## Homework

### Order from least to greatest

- 18, 16, 19, \_\_\_\_\_
- 22, 20, 28, \_\_\_\_\_
- 40, 46, 44, \_\_\_\_\_
- 35, 31, 37, \_\_\_\_\_

### Balance to make equal



$$6 + 5 = \underline{\quad} + 3$$



$$7 + 7 = 9 + \underline{\quad}$$



## Order from least to greatest.



\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write R on the rectangle.



## Balance to make equal.



$$4 + 1 = 2 + \underline{\quad} \quad 2 + 5 = 5 + \underline{\quad}$$



$$2 + \underline{\quad} = 5 + 1 \quad 4 + 2 = 1 + \underline{\quad}$$

Week 4, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Write this subtraction question on the board.

$$\begin{array}{r} 23 \\ - 7 \\ \hline \end{array}$$

- Ask pupils to solve the problem by regrouping.

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show pupils how to add  $8 + 8$  on the board by breaking apart.

- $8 + 8 = 8 + \underline{\quad} + \underline{\quad} \rightarrow$  write two dashes
- $8 + 8 = 8 + \underline{2} + \underline{\quad} \rightarrow$   $8 +$  the number in the first dash must equal 10.
- $8 + 8 = 8 + 2 + \underline{6} \rightarrow$  fill the second dash with what is left from 8 ( $8 - 2 = 6$ )

- Complete the addition:  $8 + 2 = 10$ ,  $10 + 6 = \underline{16}$

- Guide:** Work with pupils to repeat the process with  $8 + 7$  on the board

$$8 + 7 = 8 + \underline{2} + \underline{5} = 10 + 5 = \underline{15}$$

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Show how to order 19, 32, 10 from the least to greatest using place value.

(10, 19, 32)

- Guide:** Work with pupils to order 18, 15, 17 from least to greatest on the board using place value.

(15, 17, 18)

### Activity 3 Operations: Equivalence

- Draw:** Write  $3 + \underline{\quad} = 2 + 5$  on the board.
- Demonstrate:** Tell the pupils that both sides must have the same answer.

☞ First work out the side that is complete

$$2 + 5 = 7$$

☞ Write 7 on both sides of the equation

$$\begin{array}{r} 3 + \underline{\quad} = 2 + 5 \\ 7 \quad \quad = 7 \end{array}$$

☞ Count on from 3 to 7 to get the missing number (4)

☞ Complete the equation.

$$3 + 4 = 2 + 5$$

- Draw:** Write  $2 + 3 = 5 + \underline{\quad}$  on the board.
- Guide:** Work with pupils to balance the statement on the board  $2 + 3 = 5 + \underline{0}$

## Classwork

- Pupils to work out the activities on page 17.

## Conclusion

- Write  $7 + 5 = \underline{\quad}$  on the board.
- Have pupils solve the problem by breaking apart.

## Homework

### Add by breaking apart

- $9 + 7 = 9 + \underline{\quad} + \underline{\quad} = \underline{\quad}$
- $6 + 7 = 6 + \underline{\quad} + \underline{\quad} = \underline{\quad}$
- $7 + 8 = 7 + \underline{\quad} + \underline{\quad} = \underline{\quad}$
- $5 + 9 = 5 + \underline{\quad} + \underline{\quad} = \underline{\quad}$

### Balance to make equal

- $3 + 5 = \underline{\quad} + 6$
- $7 + 2 = 5 + \underline{\quad}$
- $4 + \underline{\quad} = 3 + 3$



## Add by breaking apart.

- $8 + 5 = \underline{\quad}$
- $9 + 4 = \underline{\quad}$
- $8 + 2 + 3 = \underline{\quad}$
- $9 + 1 + 3 = \underline{\quad}$
- $8 + 7 = \underline{\quad}$
- $7 + 9 = \underline{\quad}$
- $8 + \underline{\quad} + \underline{\quad} = \underline{\quad}$
- $7 + \underline{\quad} + \underline{\quad} = \underline{\quad}$

## Order from least to greatest.

- 29

27

25
- 21

17

23

\_\_\_\_, \_\_\_\_, \_\_\_\_      \_\_\_\_, \_\_\_\_, \_\_\_\_

## Balance to make equal.

- $3 + \underline{\quad} = 4 + 0$
- $5 + 1 = 1 + \underline{\quad}$

Week 4, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to use the hundreds chart to count backwards by ones from 55 to 1.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write 27, 26, 25, \_\_, \_\_ and 3, 2, 1, \_\_.
- Guide:** Have pupils write the next numbers in the patterns by counting backwards:  
27, 26, 25, 24, 23      3, 2, 1, 0

### Activity 2 Operations: Equivalence

- Draw:** Write  $7 + \underline{\quad} = 3 + 4$  on the board.
- Demonstrate:** Show how to balance the statement as explained below:

$$\begin{array}{c} 7 + \underline{\quad} = 3 + 4 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 7 \quad \quad 7 \end{array}$$

- $3 + 4 = 7$
- $7 + \underline{0} = 7$

Both sides of the equation must equal 7

- Draw:** Write  $5 + 6 = \underline{\quad} + 3$  on the board.
- Guide:** Work with pupils to balance the statement on the board.

$$5 + 6 = (\underline{8}) + 3.$$

### Activity 3 Measurement: Time

- Draw:** Display a clock face showing quarter past 4.
- Demonstrate:** Show pupils how to read and write the time in words. (**Quarter past 4**).  
- Remind pupils that the long hand is the minute hand and the short hand is the hour hand.  
- Explain that when the long hand is pointing at 3, it is quarter past the hour.

- Emphasize that the hour hand is between 4 and 5, therefore the time is a quarter past 4.

- Draw:** Change the clock face to quarter past 9.
- Guide:** Work with pupils to read and write the time in words.

## Classwork

- Pupils to work out the activities on page 18.

## Conclusion

- Draw:** Have a clock face showing quarter past 10. Guide pupils to discuss about the location of the hour hand, the minute hand and tell time.

## Homework

### Write the next number

- 46, 45, 44, 43, \_\_\_\_, \_\_\_\_
- 33, 32, 31, \_\_\_\_, \_\_\_\_
- 14, 13, 12, 11, \_\_\_\_, \_\_\_\_
- 65, 64, 63, \_\_\_\_, \_\_\_\_

### Balance to make equal

- \_\_\_\_ + 7 = 4 + 3
- 3 + 5 = 6 + \_\_\_\_

### Draw a clock face showing:

- Quarter past 10
- Quarter past 6



## Write the next numbers.

1 58, 57, 56, \_\_, \_\_, \_\_, \_\_, \_\_

2 66, 65, 64, \_\_, \_\_, \_\_, \_\_, \_\_

## Order from greatest to least.

3 21 27 25      4 25 19 23

\_\_\_\_, \_\_\_\_, \_\_\_\_      \_\_\_\_, \_\_\_\_, \_\_\_\_

## Balance to make equal.

5  $2 + \underline{\quad} = 5 + 1$

## Write the time.



Week 4, Day 3:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		



## Introduction



- Count with pupils by tens from 10 to 70
- Count with pupils backwards by tens from 70 to 10.

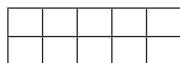
## Development

### Activity 1 Operations: Number patterns

- Draw:** Write 30, 40, 50, \_\_\_\_.
- Demonstrate:** Show how to write the next number in the pattern by counting by tens.  
(30, 40, 50, 60)
- Guide:** Work with pupils to write the missing number in the pattern 25, 27, 29, \_\_, 33, 35 by counting by twos  
(25, 27, 29, 31, 33, 35)

### Activity 2 Whole numbers: Counting by 5's

- Draw:** Draw the following dots on the board:  

- Demonstrate:** Show how to count the dots by adding 5 in each row:  
  $5 + 5 = 10 + 5 = 15 + 5 = \underline{20 \text{ dots}}$
- Guide:** Work with pupils to count the rectangle parts shown by adding 5 in each row.



$$5 + 5 = \underline{10}$$

### Activity 3 Operations: Addition

- Draw:** Write 'Jane has 5 sweets, Peter has 5 sweets. How many sweets do they both have?'
- Demonstrate:** Explain how to find the total number of sweets by writing a number sentence:

$$\rightarrow 5 + 5 = \underline{10 \text{ sweets}}$$

(use real objects to demonstrate).

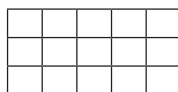
- Draw:** Write 'James has 7 books, Roy has 9 books. How many books do they have altogether?'
- Guide:** Work with pupils to work out the total number of books and write the number sentence.  
 $\rightarrow 7 + 9 = \underline{16 \text{ books.}}$

## Classwork

- Pupils to work out the activities on page 20.

## Conclusion

- Draw the rectangle below on the board and have pupils count the parts.



## Homework

### Write the next number

- 40, 30, 20, \_\_\_\_
- 40, 50, 60, \_\_\_\_

### Write the missing number

- 45, 43, 41, \_\_\_\_, 37, 35
- 17, 19, \_\_\_\_, 23, 25, 27
- 27, 25, 23, \_\_\_\_, 19, 17
- There are 13 cows in the field. There are 9 goats in the same field. How many animals are there in the field?

**Note:** Remember to give the weekly test!



## Write the next number.

- 10, 20, 30, \_\_\_\_
- 70, 60, 50, \_\_\_\_

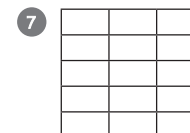
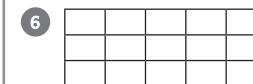
## Write the missing number.

- 69, 67, 65, \_\_, 61, 59

## Write the number of dots.



## How many parts are in each rectangle?



## Work out.

- There are 13 girls. There are 15 boys. How many children are there?
- There are 14 birds on a tree. Then 4 more birds come to the tree. How many birds are there?

\_\_\_\_ children

\_\_\_\_ birds

Week 4, Day 5:

Duration:

Roll:

Remarks:



## Speed Test 1

Work out:

$9 + 6 = \underline{\quad}$

$15 - 9 = \underline{\quad}$

$4 + 9 = \underline{\quad}$

$14 - 7 = \underline{\quad}$

$6 + 7 = \underline{\quad}$

$5 + 9 = \underline{\quad}$

$17 - 9 = \underline{\quad}$

$8 + 7 = \underline{\quad}$

$16 - 7 = \underline{\quad}$

$8 + 8 = \underline{\quad}$

$6 + 9 = \underline{\quad}$

$17 - 8 = \underline{\quad}$

$9 + 7 = \underline{\quad}$

$14 - 8 = \underline{\quad}$

$7 + 8 = \underline{\quad}$

$15 - 8 = \underline{\quad}$

$7 + 9 = \underline{\quad}$

$12 - 9 = \underline{\quad}$

$8 + 9 = \underline{\quad}$

$9 + 8 = \underline{\quad}$

$16 - 9 = \underline{\quad}$

$18 - 9 = \underline{\quad}$

$9 + 9 = \underline{\quad}$

$15 - 7 = \underline{\quad}$

$16 - 8 = \underline{\quad}$

$8 + 6 = \underline{\quad}$

$13 - 7 = \underline{\quad}$



## Check-Up Quiz, Weeks 1–4

Write the next numbers.

1  $60, 61, \underline{\quad}, \underline{\quad}$

Balance to make equal.

2  $\underline{\quad} + 4 = 9 + 2$

Order from least to greatest.

3  $\boxed{22} \quad \boxed{30} \quad \boxed{28}$

$\underline{\quad}, \underline{\quad}, \underline{\quad}$

Work out.  
Use addition or subtraction.

4 There are 11 books on the shelf. Wamalwa puts 5 more books on the shelf. How many books are on the shelf now?

$\underline{\quad}$  books

Add or subtract. Break a number to solve.

5  $16 - 9 =$

6  $9 + 6 =$

$16 - \underline{\quad} - \underline{\quad} = \underline{\quad}$

$9 + \underline{\quad} + \underline{\quad} = \underline{\quad}$

Add or subtract.

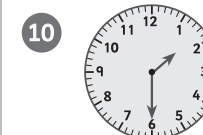
7 
$$\begin{array}{r} 19 \\ + 11 \\ \hline \end{array}$$

8 
$$\begin{array}{r} 23 \\ - 17 \\ \hline \end{array}$$

Write the number of dots.

9  $\begin{array}{cccccc} \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \end{array}$

Write the time.





## Introduction

- Have pupils work out  $12 - 5 = \underline{\quad}$  using counters.

## Development

### Activity 1 Operations: Subtraction

- Demonstrate:** Use  $14 - 6$  to review the steps for subtraction by breaking apart.
  - $14 - 6 =$  underline the ones in the first number.
  - $14 - 6 = 14 - \underline{\quad} - \underline{\quad} \rightarrow$  write the 2 dashes.
  - $14 - 6 = 14 - \underline{4} - \underline{\quad} \rightarrow$  Fill the first dash with the number underlined.
  - $14 - 6 = 14 - 4 - 2 \rightarrow$  Fill the second dash with what is left from 6 ( $6 - 4 = 2$ ).
- Complete the subtraction  $\rightarrow 14 - 4 - 2 = 10 - 2 = \underline{8}$
- Guide:** Work with pupils to solve  $11 - 5$  by breaking apart. ( $11 - 1 - 4 = 10 - 4 = \underline{6}$ )

### Activity 2 Operations: Number patterns

- Guide:** Review counting by fives from 40 to 70 with the class.
- Guide:** Work with pupils to count by fives and write the next numbers in the pattern 40, 45, 50,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$  (55, 60, 65)
- Guide:** Review counting by twos from 10 to 30 with the class.
- Guide:** Work with pupils to count by twos and write the next numbers in the pattern 12, 14, 16,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$  (18, 20, 22)

### Activity 3 Operations: Subtraction

- Draw:** Write "Teacher has 12 pencils. She gives 4 to Paul. How many pencils does she have left?"

- Demonstrate:** Show how to work out this problem using real objects e.g. count 12 pencils; take away 4 pencils and count the remaining pencils.
- Write a number sentence to show how you solved the problem.
  - $\rightarrow 12 - 4 = \underline{8 \text{ pencils}}$
- Draw:** Write "Sam has 18 sweets. He eats 9 sweets. How many sweets does he have left?"
- Guide:** Work with pupils to find the number of sweets left by writing a number sentence and solving the problem.
  - $\rightarrow 18 - 9 = \underline{9 \text{ sweets}}$

## Classwork

- Pupils to work out the activities on page 23.

## Conclusion

- Count backwards with pupils by fives from 70 to 5.

## Homework

### Write the next numbers

- 24, 26, 28,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$
- 25, 30, 35,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$
- 18, 20, 22,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$
- 50, 52, 54,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$

### Subtract by breaking apart

- $14 - 7 = 14 - \underline{\quad} - \underline{\quad} = \underline{\quad}$
- $16 - 9 = 16 - \underline{\quad} - \underline{\quad} = \underline{\quad}$



## Subtract by breaking apart.

1  $16 - 7 = \underline{\quad}$       2  $15 - 7 = \underline{\quad}$   
 $16 - \underline{\quad} - \underline{\quad} = \underline{\quad}$        $15 - \underline{\quad} - \underline{\quad} = \underline{\quad}$

## Write the next numbers.

- 3 36, 38, 40,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$   
 4 25, 30, 35,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$   
 5 46, 48, 50,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$

## Write the number of dots.

- 6  $\underline{\quad}$       7  $\underline{\quad}$

## Work out.

- 8 There are 13 dogs. 5 dogs ran away. How many dogs are left?  $\underline{\quad}$  dogs  
 9 Ali has 28 coconuts. He sold 6 coconuts. How many coconuts were left?  $\underline{\quad}$  coconuts

Week 5, Day 1:	Duration:	Roll:
<hr/>	<hr/>	<hr/>
Remarks: <hr/>		
<hr/>		

## Introduction

- Have pupils count by fives from 5 to 70.
- Have pupils count backwards by fives from 70 to 5.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write 30, 25, 20, \_\_\_\_, \_\_\_\_, \_\_\_\_
- Demonstrate:** Show how to count backwards by fives and fill the next numbers in the following pattern:  
30, 25, 20, 15, 10, 5
- Guide:** Work with pupils to count backwards by twos and fill the next numbers in the pattern: 46, 44, 42, \_\_\_\_, \_\_\_\_, \_\_\_\_ (40, 38, 36)

### Activity 2 Geometry: Rectangles, squares

- Draw:** Draw a rectangle on the board.
- Demonstrate:** Review the properties of a rectangle: → It has 4 sides, 2 sides are long and 2 sides are short opposite sides are equal.



- Draw:** Draw a square on the board.



- Demonstrate:** Review the properties of a square: → It is made up of a 4 sides, all sides are equal.
- Guide:** Call a few pupils to draw rectangles and squares on the board.
- Guide:** Work with pupils to identify objects in the classroom with the square or rectangle shapes.

## Classwork

- Pupils to work out the activities on page 24.

## Conclusion

- Use the number cards 27, 12, 38, 20 and ask pupil to order the numbers from greatest to least.

## Homework

### Write the next numbers

- 35, 30, 25, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 45, 50, 55, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 28, 26, 24, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 2, 4, 6, \_\_\_\_, \_\_\_\_, \_\_\_\_

- Draw a square

- Draw a rectangle

### Teacher Tip

From: Teacher Rose

The teacher should use group work as a means to help the weaker pupils since they may be able to understand their fellow pupil's explanation better.



## Write the next numbers.

- 40, 45, 50, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 70, 68, 66, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 50, 45, 40, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 54, 52, 50, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 40, 35, 30, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write 'S' on squares and 'R' on rectangles.

- 
- 
- 
- 

Week 5, Day 2:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Draw these two groups of dots on the board.



- Ask pupils to count the groups by twos and write the number of dots.

## Development

### Activity 1 Operations: Subtraction

- Draw:** Write the following on the board.

$$\begin{array}{r} 26 \\ -17 \\ \hline \end{array}$$

- Demonstrate:** Show how to work out the subtraction below by regrouping as shown:

$$\begin{array}{r} 116 \\ \cancel{2} \cancel{6} \\ -17 \\ \hline 9 \end{array}$$

(Emphasise on how to regroup 26 as 1 ten and 16 ones. 16 ones minus 7 ones equals 9 ones. 1 ten minus 1 ten equals 0)

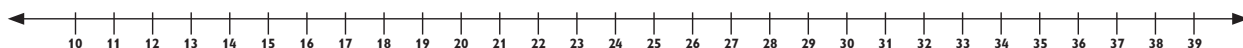
- Draw:** Write the following on the board.

$$\begin{array}{r} 22 \\ -19 \\ \hline \end{array}$$

- Guide:** Work with pupils to work out the subtraction on the board using regrouping.

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw a number line by ones from 10 to 39 on the board. Then write 36, 18, 25, 21 next to it.



- Demonstrate:** Show how to order the numbers 36, 18, 25, 21 from least to greatest using the number line:  
→ 18 comes before 21, 21 comes before 25 and so on. (18, 21, 25, 36)
- Remind pupils that numbers on the right of the number line are greater than the ones on the left.
- Draw:** Write 14, 23, 39 on the board.
- Guide:** Work with pupils to order these numbers from least to greatest using a number line.

### Activity 3 Geometry: Rectangles, squares

- Guide:** Ask pupils to state the properties of squares and rectangles.
- Ask a few pupils to draw rectangles and squares on the board.

## Classwork

- Pupils to work out the activities on page 25.

## Conclusion

- Have pupils work out the missing numbers in the number patterns:  
45, 40, 35, \_\_ 25      16, 14, 12, \_\_, 8, 6

## Homework

### Subtract

$$\begin{array}{l} 1. \quad \begin{array}{r} 17 \\ -9 \\ \hline \end{array} \quad 2. \quad \begin{array}{r} 21 \\ -16 \\ \hline \end{array} \quad 3. \quad \begin{array}{r} 40 \\ -23 \\ \hline \end{array} \quad 4. \quad \begin{array}{r} 32 \\ -16 \\ \hline \end{array} \end{array}$$

### Order the numbers from least to greatest

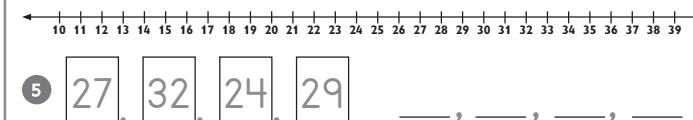
- 16, 10, 5, 20 \_\_\_\_\_
- 35, 63, 27, 18 \_\_\_\_\_



## Work out.

$$\begin{array}{l} 1. \quad \begin{array}{r} 24 \\ -19 \\ \hline \end{array} \quad 2. \quad \begin{array}{r} 23 \\ -6 \\ \hline \end{array} \quad 3. \quad \begin{array}{r} 30 \\ -18 \\ \hline \end{array} \quad 4. \quad \begin{array}{r} 22 \\ -14 \\ \hline \end{array} \end{array}$$

## Use the number line to order from least to greatest.



## Write 'S' on the squares.



## Count and write the number.



Week 5, Day 3:	Duration:	Roll:
_____	_____	_____
Remarks: _____		

## Introduction

- Draw this group of dots on the board.

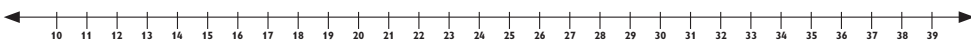


- Ask pupils to count by tens and write the number of dots.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Draw a number line by ones from 10 to 39.



- Demonstrate:** Remind pupils that numbers on the right are bigger and numbers on the left are smaller.
- Guide:** Work with pupils to order numbers 17, 11, 25, 32 from least to greatest using the number line. (11, 17, 25, 32)
- Ask pupils to order the same numbers from greatest to least using the number line. (32, 25, 17, 11)

### Activity 2 Measurement: Time

- Draw:** Display a clock face showing quarter to 7.
- Demonstrate:** Remind pupils about the long hand (minute hand) and short hand (hour hand)
- Explain that when the minute hand is pointing at 9, the time is "**quarter to**".
- Emphasize that the hour hand is between 6 and 7 but closer to 7, therefore the time is a quarter to 7.
- Draw:** Write the time in words: Quarter to 7.

- Guide:** Change clock face to quarter to 4 and have pupils read and write the time in words.

## Classwork

- Pupils to work out the activities on page 26.

## Conclusion

- Ask pupils to order 14, 35, 28, 10 from greatest to least and from least to greatest using a number line.

## Homework

### Write the missing numbers

- 30, 35, \_\_, 45, 50
- 5, 10, \_\_, 20, 25
- 30, 25, \_\_, 15, 10
- 25, 20, \_\_, 10, 5

### Order the numbers from greatest to least

- 18, 3, 25, 16
- 40, 10, 30, 20

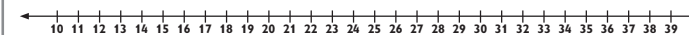
### Draw a clock face showing

- Quarter to 3.
- Quarter to 1

### Teacher Tip

From: Teacher Kariuki

You can make the Math lesson livelier by singing a Math song at the beginning of the lesson.



### Use the number line to order from least to greatest.

- 33, 24, 27, 37

### Write the missing number.

- 45, 50, \_\_, 60, 65

- 50, 45, \_\_, 35, 30

### Write the time.



### Count and write the number.

- ▲▲▲▲ =
- =

Week 5, Day 4:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction


- Ask pupils to work out the following facts orally.  
 $6 + 4 = \underline{\quad}$ ,  $8 - 7 = \underline{\quad}$ ,  $9 + 9 = \underline{\quad}$ ,  
 $10 - 5 = \underline{\quad}$ ,  $8 + 7 = \underline{\quad}$ ,  $9 - 6 = \underline{\quad}$

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write 15, 20,   , 30, 35 and 20, 15,   , 5, 0 on the board.
- Guide:** Work with pupils to count forward and backward by fives and write the missing numbers in the patterns:  
15, 20, (25), 30, 35  
20, 15, (10), 5, 0

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw these 2 groups on the board:  

- Guide:** Work with pupils to count them by adding rows then find the group with more objects.

$$\begin{array}{c} \triangle \triangle \triangle \\ \triangle \triangle \triangle \end{array} \quad 3 + 3 = 6 + 3 = \underline{9}$$

$$\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array} \quad 2 + 2 = 4 + 2 = 6 + 2 = 8$$

### Activity 3 Operations: Addition

- Draw:** Write the following sum on the board.  

$$\begin{array}{r} 28 \\ + 17 \\ \hline \end{array}$$
- Demonstrate:** Show how to work it out by regrouping:

$$\begin{array}{r} 1 \\ 28 \\ + 17 \\ \hline 45 \end{array}$$

( $8 + 7 = 15$ . Regroup 15 ones as 1 ten and 5 ones. Write 5 in the ones column and add the 1 ten to the tens column to get 4.)

- Draw:** Write the following sum on the board.

$$\begin{array}{r} 35 \\ + 18 \\ \hline \end{array}$$

- Guide:** Work with pupils to find the sum using regrouping on the board.

## Classwork

- Pupils to work out the activities on page 27.

## Conclusion

- Pupils to work out  $\begin{array}{r} 17 \\ + 17 \\ \hline \end{array}$  at the back of their books as you emphasize on the regrouping.

## Homework

Add

- |  |  |
|--|--|
| 1. $\begin{array}{r} 25 \\ + 37 \\ \hline \end{array}$ | 2. $\begin{array}{r} 28 \\ + 28 \\ \hline \end{array}$ |
| 3. $\begin{array}{r} 45 \\ + 16 \\ \hline \end{array}$ | 4. $\begin{array}{r} 26 \\ + 19 \\ \hline \end{array}$ |

Write the missing number

5. 35, 40,   , 50, 55  
6. 25, 20,   , 10, 5

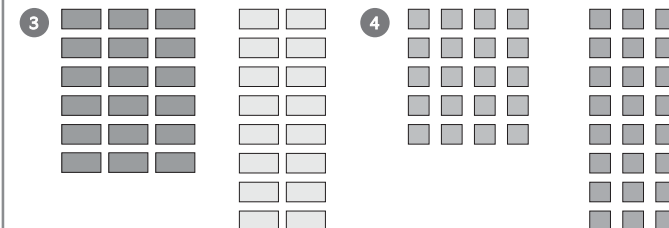
**Note:** Remember to give the weekly test!



Write the missing number.

- 1 50, 55,   , 65, 70  
2 60, 55,   , 45, 40

Circle the group that shows more shapes.



Work out.

- 5  $6 + 3 = \underline{\quad}$       6  $10 - 7 = \underline{\quad}$

Work out.

- |   |   |   |  |
|---|---|---|--|
| 7 $\begin{array}{r} 23 \\ + 17 \\ \hline \end{array}$ | 8 $\begin{array}{r} 16 \\ + 18 \\ \hline \end{array}$ | 9 $\begin{array}{r} 19 \\ + 18 \\ \hline \end{array}$ | 10 $\begin{array}{r} 16 \\ + 24 \\ \hline \end{array}$ |
| <u>  </u>   | <u>  </u>   | <u>  </u>   | <u>  </u>  |

Week 5, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by ones from 1 to 100. You can use a counting game.

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show pupils how to work out  $27 + 16$  by regrouping

$$\begin{array}{r} 1 \\ 27 \\ + 16 \\ \hline 43 \end{array}$$

( $7 + 6 = 13$ . Regroup 13 ones as 1 tens and 3 ones. Write 3 in the ones column and add the 1 ten to the tens column to get 4.)

- Guide:** Work with the pupils to work out  $23 + 19$  by regrouping.

### Activity 2 Operations: Subtraction

- Demonstrate:** Show the pupils how to work out  $30 - 17$  by regrouping.

$$\begin{array}{r} 210 \\ \cancel{3} \cancel{0} \\ - 17 \\ \hline 13 \end{array}$$

(Regroup 30 as 2 tens and 10 ones. Subtract 7 from 10 to get 3. Subtract 1 ten from 2 tens to get 1 ten).

- Guide:** Work with the pupils to work out  $32 - 17$  by regrouping.

### Activity 3 Geometry: Rectangle, circle, square, triangle

- Guide:** Ask several pupils to draw each of the following shapes on the board: rectangle, circle, square, triangle.

## Classwork

- Pupils to work out the activities on page 28.

## Conclusion

- Guide pupils to work out  $29 + 14 = \underline{\quad}$  and  $32 - 8 = \underline{\quad}$  by regrouping.

## Homework

### Add

$$\begin{array}{r} 1. \quad 18 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 27 \\ + 13 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 16 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 25 \\ + 16 \\ \hline \end{array}$$

### Subtract

$$\begin{array}{r} 5. \quad 20 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 23 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 46 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 30 \\ - 17 \\ \hline \end{array}$$

### Teacher Tip

From: Teacher Ogolo

For an effective lesson, always ensure that relevant teaching and learning materials are prepared early enough.



## Work out.

$$\begin{array}{r} 1. \quad 21 \\ + 19 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 18 \\ + 14 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 16 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 13 \\ + 28 \\ \hline \end{array}$$

## Work out.

$$\begin{array}{r} 5. \quad 16 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 13 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 15 \\ - 9 \\ \hline \end{array}$$

## Draw the shape.

- 9 rectangle      10 circle
- 11 square      12 triangle

Week 6, Day 1:	Duration:	Roll:
_____	_____	_____
Remarks: _____		



## Introduction

- Draw 7 rows of 10 dots in each row. Have pupils count by tens from 10 to 70.

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show pupils how to work out  $27 + 16$  by regrouping

$$\begin{array}{r} 1 \\ 4 \ 6 \\ + 1 \ 6 \\ \hline 6 \ 2 \end{array} \quad (6 + 6 = 12. \text{ Regroup 12 ones as 1 ten and 2 ones. Write 2 in the ones column and add the 1 ten to the tens column to get 6.})$$

- Guide:** Work with the pupils to work out  $27 + 17$  by regrouping.

### Activity 2 Operations: Subtraction

- Demonstrate:** Show pupils how to work out  $34 - 17$  by regrouping

$$\begin{array}{r} 2 \ 14 \\ \cancel{3} \ \cancel{4} \\ - 1 \ 7 \\ \hline 1 \ 7 \end{array} \quad (\text{Regroup 34 as 2 tens and 14 ones. Subtract 7 from 14 to get 7. Subtract 1 ten from 2 tens to get 1 ten.})$$

- Guide:** Work with the pupils to work out  $40 - 18$  by regrouping 40 as 3 tens and 10 ones.

### Activity 3 Operations: Number pattern

- Guide:** Work with pupils how to complete the following patterns on the board through counting by ones.

38, 39, 40, \_\_\_\_, \_\_\_\_, \_\_\_\_

25, 26, 27, \_\_\_\_, \_\_\_\_, \_\_\_\_

16, 17, 18, \_\_\_\_, \_\_\_\_, \_\_\_\_

46, 47, 48, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Classwork

- Pupils to work out the activities on page 29.

## Conclusion

- Draw 6 rows of 10 dots each and a seventh row with 3 dots. Guide pupils to count by tens up to 60 then add 3 to get 63 dots.

## Homework

### Add

$$\begin{array}{r} 1. \quad 27 \\ + 18 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 16 \\ + 16 \\ \hline \end{array}$$

### Subtract

$$\begin{array}{r} 3. \quad 30 \\ - 16 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 23 \\ - 19 \\ \hline \end{array}$$

### Write the next numbers

5. 30, 31, 32, \_\_\_\_, \_\_\_\_, \_\_\_\_

6. 47, 48, 49, \_\_\_\_, \_\_\_\_, \_\_\_\_

### Teacher Tip

From: Teacher Okullo

Ensure that you time the speed test and encourage pupils to work on the questions quickly and carefully.



## Work out.

$$\begin{array}{r} 1 \quad 13 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 15 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 14 \\ + 7 \\ \hline \end{array}$$

## Work out.

$$\begin{array}{r} 4 \quad 23 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 30 \\ - 11 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 24 \\ - 16 \\ \hline \end{array}$$

## Write the next numbers.

7 52, 53, 54, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

8 58, 59, 60, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Count and write the number of dots.



Week 6, Day 2:

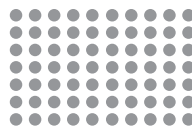
Duration:

Roll:

Remarks:

## Introduction

- Draw 7 rows of 10 dots in each row and 6 dots on the eighth row.
- Ask pupils count by tens from 10 to 70, then count the individual dots to get 76.



- **Guide:** Work with the pupils in counting the dots by tens to get 70 dots.

## Development

### Activity 1 Whole numbers: Comparing numbers

- **Draw:** Write the numbers 25 and 27 on the board.
- **Demonstrate:** Show pupils how to use place value to compare the two numbers, then circle the greater number
- Show that  $25 = 2 \text{ tens } 5 \text{ ones}$ ,  $27 = 2 \text{ tens } 7 \text{ ones}$ , 27 has more ones so it is greater.
- **Draw:** Write the numbers 35 and 16 on the board.
- **Guide:** Work with the pupils to compare the numbers using place value and circle the greater number.

### Activity 2 Whole numbers: Reading and writing numbers

- **Demonstrate:** Write the numbers 71 -80 on the board. Point and read the numbers as pupils repeat after you.
- **Demonstrate:** Write the numbers 81-90 on the board. Point and read the numbers as pupil repeat after you.
- **Demonstrate:** Write the numbers 91 – 100 on the board. Point and read the numbers as pupils repeat after you.
- **Guide:** Ask the pupils to copy the numbers in their books.

### Activity 3 Whole numbers: Counting by 10's

- **Draw:** Draw 10 rows of 7 dots in each row.

## Classwork

- Pupils to work out the activities on page 30.

## Conclusion

- Have pupils name the missing number in the pattern 0, 10, 20, \_\_\_\_, 40.

## Homework

### Circle the greater number

1. 43 36                      2. 28 72                      3. 45 54

### 4. Write numbers from 71 to 80

\_\_\_\_\_

### 5. Write numbers from 81 to 90

\_\_\_\_\_

### 6. Write numbers from 91 to 100

\_\_\_\_\_

### Teacher Tip

From: Teacher Sarah

When pupils are using their Math workbooks, it is important to walk around and correct those who are struggling. In this way, you will know if you need to go back and reteach what they did not get.



## Circle the greater number.

① 31 27                      ② 34 38

③ 35 37                      ④ 32 29

## Write the numbers from 71 to 78.

⑤ \_\_\_\_\_

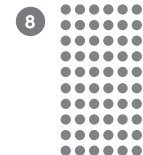
## Write the numbers from 87 to 100.

⑥ \_\_\_\_\_

## Count and write the number of dots.



\_\_\_\_\_



\_\_\_\_\_

Week 6, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count by tens from 10 to 100.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the numbers 24 and 14 on the board.
- Demonstrate:** Show the pupils how to use place value to compare the two numbers then circle the lesser number.
- Show that 24 = 2 tens 4 ones. 14 = 1 ten 4 ones. 14 has fewer tens so it is lesser.
- Guide:** Work with the pupils to compare the numbers 36 and 34 using place value.

### Activity 2 Measurement: Time

- Demonstrate:** Display a clock face showing a quarter to two.
- Remind pupils that when the minute hand is pointing at 9 the time is 'quarter to'.
- Explain that when hour hand is between 1 and 2 and the minute hand is at 9, the time is quarter to two.
- Guide:** Work with the pupils to read and tell time with a clock face showing quarter to 6. Explain how to write the time in words.

### Activity 3 Operations: Equivalence

- Demonstrate:** Show pupils how to balance the number sentence shown below:

●●●●●      ●●●●●

$$4 - 1 = 5 - \underline{\quad}$$

- On the left hand side, work out 4 - 1 by cancelling one dot to be left with 3.
- On the right hand side, count 3 dots then cancel the rest of the dots.

- Count the dots cancelled on the right hand side to fill the dash  $\rightarrow 4 - 1 = 5 - \underline{2}$
- Guide:** Work with the pupils in balancing the number sentence shown below:

●●●●●      ●●●●●

$$6 - 3 = 4 - \underline{\quad} \quad (6 - 3 = 4 - \underline{1})$$

## Classwork

- Pupils to work out the activities on page 31.

## Conclusion

- Write  $7 - 2 = 3 - \underline{\quad}$
- Ask pupils to solve the problem with their partners.
- Call on a pupil to solve it on the board.

## Homework

### Circle the lesser number.

- 36 45
- 46 64
- 25 16
- 17 15

### Balance to make equal

5. ●●●●●      ●●●●●  
 $7 - 3 = 5 - \underline{\quad}$

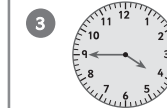
6. ●●●●●      ●●●●●  
 $8 - 2 = 9 - \underline{\quad}$



## Circle the lesser number.

- 1 34 37      2 31 27

## Write the time.



## Balance to make equal.

5 ●●●●● = ●●●●●

6 ●●●●● = ●●●●●

$$6 - 1 = 7 - \underline{\quad} \quad 4 - 3 = 9 - \underline{\quad}$$

## Write the missing number.

- 7 30, 40, \_\_, 60      8 0, 10, \_\_, 30

## Write the numbers from 91 to 100.

- 9 \_\_\_\_\_

Week 6, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Display a clock face and ask pupils to read and tell the time as quarter past and quarter to.

## Development

### Activity 1 Whole numbers: Counting by 100's

- Demonstrate:** Count by hundreds as you write the numbers between 100 and 900.
- Guide:** Work with pupils to count and write the numbers between 100 and 900 in their books.

### Activity 2 Operations: Number patterns

- Draw:** Write 400, 500, \_\_, 700.
- Demonstrate:** Count by hundreds as you write the missing numbers; 400, 500, \_\_, 700.
- Draw:** Write 200, 300, \_\_, \_\_, 600 on the board.
- Guide:** Work with pupils to count and write the missing numbers; 200, 300, 400, 500, 600.

### Activity 3 Operations: Number patterns

- Guide:** Work with the pupils to count by tens and complete the following patterns on the board.

10, 20, \_\_, 40, 50      (30)

0, 10, \_\_, 30, 40      (20)

### Activity 4 Whole numbers: Counting

- Draw:** Draw the following table on the board with tallies and numbers that they represent.

1	2	3	4	5

- Demonstrate:** Go over the tallies for the numbers 1 to 5.
- Call 5 pupils and have each pupils draw tally marks for the numbers 1 to 5.

## Classwork

- Pupils to work out the activities on page 32.

## Conclusion

- Have different pupils draw tally marks for the numbers 1 to 5.

## Homework

Write the missing number

- 0, 10, \_\_, 30, 40
- 30, 40, \_\_, 60, 70
- 40, 50, \_\_, 70, 80
- 60, 70, \_\_, 90, 100

Write the number

- ||| \_\_\_\_
- |||| \_\_\_\_
- | \_\_\_\_
- |||| \_\_\_\_

**Note:** Remember to give the weekly test!

### Teacher Tip

From: Teacher Linda

Tally marks are used in the PRIMR program as a simple tool for counting. What is important is for the learners to use it as another way to carry out counting using groups of five.



Write the time.

1



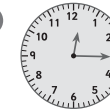
2



3



4



Write the missing number.

5 30, 40, 50, \_\_, 70

6 0, 10, 20, \_\_, 40, 50

Count by hundreds and write the missing number.

7 100, 200, 300, 400, \_\_, 600

8 500, 600, 700, \_\_, 900

Write the number.

9

||| \_\_\_\_

10

|||| \_\_\_\_

Week 6, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count by ones from 300 to 350.

## Development

## Activity 1 Operations: Addition

- Demonstrate:** Show the pupils how to add  $14 + 8$  by breaking apart 8 as shown:
 

$14 + 8 = 14 + \underline{\quad}$  → underline the number in the ones place from the first number.

$14 + 8 = 14 + \underline{\quad} + \underline{\quad}$  → write two dashes.

$14 + 8 = 14 + \underline{6} + \underline{\quad}$  → 4 + the number in the first dash must equal 10.

$14 + 8 = 14 + 6 + \underline{2}$  → fill the second dash with what is left from 8. ( $8 - 6 = 2$ )
- Complete the addition →  $14 + 6 = 20$ ,  $20 + 2 = \underline{22}$
- Guide:** Work with the pupils to add  $19 + 5$  by breaking apart.
 

$19 + 5 = 19 + \underline{1} + 4 = 20 + 4 = \underline{24}$

## Activity 2 Whole numbers: Place value

- **Draw:** Draw place value charts and write the numbers 345 and 13 besides them.
- **Demonstrate:** Show how to complete the charts on the board.

	<b>Hundreds</b>	<b>Tens</b>	<b>Ones</b>
345	3	4	5

	<b>Hundreds</b>	<b>Tens</b>	<b>Ones</b>
13		1	3

- Emphasize on the hundreds place and that 3 digit numbers have 3 places; hundreds, tens and ones.
- **Draw:** Draw place value charts and write the numbers 65 and 603 besides them.

- **Guide:** Work with pupils to fill the charts on the board.

	Hundreds	Tens	Ones
65		6	5

	Hundreds	Tens	Ones
603	6	0	3

### Activity 3 Operations: Number patterns

- **Draw:** Write 258, 259, \_\_, \_\_, 262
- **Demonstrate:** Count by ones as you write the missing numbers; 258, 259, 260, 261, 262
- **Draw:** Write 307, 308, \_\_\_\_, 310, \_\_\_\_ on the board.
- **Guide:** Work with pupils to count and write the missing numbers; 307, 308, 309, 310, 311.

## Classwork

- Pupils to complete the activities on page 33.

## Conclusion

- Write 39 and guide pupils to tell the number of ones, tens and hundreds and fill the place value chart.

## Homework

### Add by breaking apart

1.  $14 + 7 = 14 + 6 + 1 = \underline{\quad}$
2.  $16 + 8 = 16 + 4 + 4 = \underline{\quad}$
3.  $17 + 7 = 17 + \underline{\quad} + \underline{\quad} = \underline{\quad}$
4.  $13 + 9 = 13 + \underline{\quad} + \underline{\quad} = \underline{\quad}$

### Draw the tallies

5 \_\_\_\_\_ 4 \_\_\_\_\_ 3 \_\_\_\_\_  
2 \_\_\_\_\_ 1 \_\_\_\_\_

**Add by breaking apart.**

1  $13 + 9 =$

②  $15 + 8 =$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \qquad \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

3  $17 + 9 =$

4  $19 + 9 =$

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \qquad \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

**Write the missing numbers.**

5 582, 583, 584, \_\_\_\_, 586, \_\_\_\_,

6 821, \_\_\_\_, 823, \_\_\_\_, 825, \_\_\_\_,

**Fill the place value chart.**

	Hundreds	Tens	Ones
472			

Hundreds	Tens	Ones

84

## Introduction

- Ask pupils count backwards by ones from 100 to 50. You can use a counting game.

## Development

### Activity 1 Operations: Addition

- Draw:** Write  $17 + 6$  on the board.
- Demonstrate:** Show how to add  $17 + 6$  by breaking apart 6 as shown:  
 $17 + 6 = 17 + \underline{\quad} \rightarrow$  underline the number in the ones place from the first number.  
 $17 + 6 = 17 + \underline{\quad} + \underline{\quad} \rightarrow$  write two dashes  
 $17 + 6 = 17 + \underline{3} + \underline{\quad} \rightarrow$  7 + the number in the first dash must equal 10.  
 $17 + 6 = 17 + 3 + \underline{3} \rightarrow$  fill the second dash with what is left from 6. ( $6 - 3 = 3$ )
- Complete the addition  $\rightarrow 17 + 3 = 20, 20 + 3 = \underline{23}$
- Draw:** Write  $16 + 7 =$  on the board.
- Guide:** Work with the pupils to add  $16 + 7$  by breaking apart.

$$16 + 7 = 16 + \underline{4} + \underline{3} = 20 + 3 = 23$$

### Activity 2 Whole numbers: Counting

- Draw:** Draw the following table on the board with tallies and numbers.

1	2	3	4	5
6	7	8	9	10

- Go over the tallies for the numbers 1 – 10 together with the pupils.
- Guide:** Work with pupils in drawing tally marks for the numbers 1 – 10 in their exercise books.

### Activity 3 Whole numbers: Place value

- Draw:** Draw place value charts and write the numbers 9 and 428 besides them.
- Guide:** Work with pupils to complete the charts on the board.

	Hundreds	Tens	Ones
9			9
	Hundreds	Tens	Ones
428	4	2	8

- Emphasize on the hundreds place and that 3 digit numbers have 3 places; hundreds, tens and ones.

## Classwork

- Pupils to work out the activities on page 34.

## Conclusion

- Draw a place value chart with up to hundreds and write the numbers 234 and 8 on the board. Guide pupils to tell how many ones, tens and hundreds are in these numbers.

## Homework

### Add by breaking apart

- $16 + 7 = 16 + 4 + 3 = \underline{\quad}$
- $18 + 6 = 18 + 2 + 4 = \underline{\quad}$

### Draw the tallies

- 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_
- 8 \_\_\_\_\_ 9 \_\_\_\_\_ 10 \_\_\_\_\_

### Fill the place value chart

5.	458	Hundreds	Tens	Ones
6.	93	Hundreds	Tens	Ones
7.	5	Hundreds	Tens	Ones



## Add by breaking apart.

- $15 + 9 =$  \_\_\_\_\_  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- $14 + 8 =$  \_\_\_\_\_  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- $17 + 8 =$  \_\_\_\_\_  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- $16 + 6 =$  \_\_\_\_\_  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

## Draw the tallies.

- 7 \_\_\_\_\_ 5 \_\_\_\_\_ 3 \_\_\_\_\_
- 10 \_\_\_\_\_ 8 \_\_\_\_\_ 9 \_\_\_\_\_

## Fill the place value chart.


6	Hundreds	Tens	Ones	7	Hundreds	Tens	Ones
78				980			

Week 7, Day 2:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		





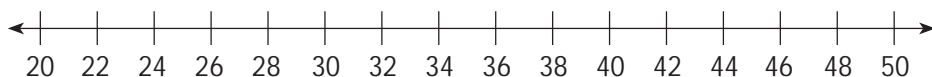
## Introduction

- Draw 3 rows of 8 dots on the board as shown.  

- Guide pupils to count the dots by adding 8 to every subsequent row:  $8 + 8 = 16 + 8 = \underline{24 \text{ dots}}$ .

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Draw a number line by twos from 20 to 50



- Demonstrate:** Show how to use the number line to order the numbers 42, 20, 36, 38 from least to greatest (20, 36, 38, 42).
- Guide:** Work with pupils to use the number line to order the numbers 24, 48, 22, 36 from greatest to least. (48, 36, 24, 22)
- Remind pupils that the number to the right of another on the number line is always greater than the one on the left.

### Activity 2 Operations: Number patterns

- Draw:** Write 86, 88, \_\_\_\_, 92, 94 and 34, 32, \_\_\_\_, 28, 26 on the board.
- Guide:** Work with pupils to write the missing numbers in the patterns below by counting forwards and backwards by twos.  
 86, 88, (90), 92, 94      34, 32, (30), 28, 26

### Activity 3 Whole numbers: Counting

- Draw:** Draw 4 rows of 6 dots.
- Guide:** Have pupils count them by adding 6 to every subsequent rows.



$$6 + 6 = 12 + 6 = 18 + 6 = \underline{24 \text{ dots}}$$

### Activity 4 Operations: Number patterns

- Draw:** Write 288, 289, \_\_\_\_, 291 and 500, 501, \_\_\_\_, 503.
- Guide:** Work with the pupils to write the missing numbers in the patterns by counting by ones.  
 288, 289, 290, 291      500, 501, 502, 503

## Classwork

- Pupils to complete activities on page 36.

## Conclusion

- Have a pupil stand and say the number 70. Have the next one stand and say the next number (71). Continue until 100.

## Homework

### Order from greatest to the least.

- 36, 44, 18, 10 \_\_\_\_\_
- 24, 20, 28, 16 \_\_\_\_\_
- 14, 10, 16, 8 \_\_\_\_\_
- 44, 48, 50, 36 \_\_\_\_\_

### Write the next numbers

- 296, 297, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 728, 729, \_\_\_\_, \_\_\_\_, \_\_\_\_



## Order from least to greatest.

- 



 \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Order from greatest to least.

- 



 \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write the missing number.

- 72, 74, \_\_\_\_, 78, 80
- 100, 98, 96, \_\_\_\_, 92

## Count and write the number of dots.

- 
 \_\_\_\_
- 
 \_\_\_\_

## Write the next numbers.

- 178, 179, 180, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 491, 492, 493, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

Week 7, Day 4:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Display a clock face showing quarter past 7.
- Let pupils read and tell the time. Write the time in words on the board. (Quarter past 7)

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write the following numbers on the board  
245, \_\_; 370, \_\_; 909, \_\_; 143, \_\_
- Guide:** Have pupils come to the board and write the next numbers  
245, 246                      370, 371,  
909, 910,                      143, 144

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write 17, 11, 15, 10 on the board.
- Demonstrate:** Show how to order the numbers using place value.  
- The tens are all 1 so we look at the ones: 0, 1, 5, 7 → (10, 11, 15, 17) 0 is the smallest and 7 is the greatest.
- Guide:** Work with pupils to order the numbers 33, 35, 31, 37 on the board from least to greatest using place value.  
- The tens are all 3 so we look at the ones: 1, 3, 5, 7 → (31, 33, 35, 37)

### Activity 3 Whole numbers: Counting

- Draw:** Draw the table below with tallies and numbers

I	II	III	IIII	IIII I
1	2	3	4	5
IIII I	IIII II	IIII III	IIII IIII	IIII IIII I
6	7	8	9	10

- Guide:** Review the tally marks for numbers 1 – 10 with pupils.
- Draw:** Draw different groups of dots between 1 – 10.
- Guide:** Work with pupils to draw the corresponding tally marks for each group.

## Classwork

- Pupils to work out the activities on page 37.

## Conclusion




- Guide pupils to draw their individual group of dots and draw the corresponding tally marks on their exercise books.

## Homework

### Write the next number

- 456, \_\_
- 300, \_\_
- 507, \_\_
- 249, \_\_
- 298, \_\_
- 777, \_\_

### Draw the tallies

-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_

**Note:** Remember to give the weekly test!



## Write the number that comes after.

- 873, \_\_\_\_
- 884, \_\_\_\_
- 989, \_\_\_\_
- 998, \_\_\_\_

## Write the number of dots.

-  \_\_\_\_\_
-  \_\_\_\_\_

## Order from least to greatest.

- 26 32 24 36
- 40 30 38 28

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_      \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Count the number of dots using tallies.

-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_

Week 7, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Write different numbers on the board between 300 and 400.
- Ask pupils identify the numbers as you point at them.

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show pupils how to arrange 311 + 28 vertically and work it out on the board.

$$\begin{array}{r} 3 \ 1 \ 1 \\ + 2 \ 8 \\ \hline 3 \ 3 \ 9 \end{array}$$

(Add the ones first, then the tens then the hundreds; 1 ones + 8 ones = 9 ones, 1 tens + 2 tens = 3 tens, 3 hundreds + 0 hundreds = 3 hundreds)

- Guide:** Work with pupils to work out 482 + 107 = \_\_\_\_ by arranging it vertically then adding the ones first, followed by tens then hundreds.

### Activity 2 Whole numbers: Counting

- Draw:** Review the tally marks for numbers 1 – 10 by drawing the table below.

1	2	3	4	5
6	7	8	9	10

- Guide:** Tell the pupils to draw any number of dots in their book between 1 – 10.
- Guide:** Ask them to draw the corresponding tally marks for the dots.
- Demonstrate:** Draw tally marks corresponding to groups of dots and use them to review the pupils' work.

## Classwork

- Pupils to work out the activities on page 38.

## Conclusion

- Write 456 + 19 = \_\_\_\_ on the board.
- Have pupils arrange the problem vertically and solve.

## Homework

### Add

$$\begin{array}{r} 1. \ 3 \ 2 \ 5 \\ + 1 \ 5 \ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \ 4 \ 0 \ 7 \\ + 9 \ 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \ 8 \ 6 \ 4 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \ 6 \ 2 \ 7 \\ + 2 \ 4 \ 0 \\ \hline \end{array}$$

### Count the objects using tallies

$$\begin{array}{r} 7. \ \bullet \bullet \\ \hline \end{array}$$

$$\begin{array}{r} 8. \ \bullet \bullet \bullet \bullet \\ \hline \end{array}$$

$$\begin{array}{r} 9. \ \triangle \triangle \triangle \\ \hline \end{array}$$

### Teacher Tip

From: Teacher Linda

When teaching how to arrange sums vertically, it is very important to emphasize how to align similar place values together; ones, tens and hundreds.



## Work out.

$$\begin{array}{r} 1. \ 249 \\ + 120 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \ 145 \\ + 231 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \ 100 \\ + 232 \\ \hline \end{array}$$

## Arrange vertically and add.

$$\begin{array}{r} 4. \ 141 + 47 = \_ \\ + \_ \\ \hline \end{array}$$

$$\begin{array}{r} 5. \ 132 + 4 = \_ \\ + \_ \\ \hline \end{array}$$

$$\begin{array}{r} 6. \ 118 + 21 = \_ \\ + \_ \\ \hline \end{array}$$

## Count the objects using tallies.

$$\begin{array}{r} 7. \ \triangle \triangle \\ \hline \end{array}$$

$$\begin{array}{r} 8. \ \circ \circ \circ \\ \hline \end{array}$$

$$\begin{array}{r} 9. \ \square \square \square \square \\ \hline \end{array}$$

$$\begin{array}{r} 10. \ \square \square \square \square \\ \hline \end{array}$$

$$\begin{array}{r} 11. \ \circ \circ \circ \circ \\ \hline \end{array}$$

$$\begin{array}{r} 12. \ \bullet \bullet \bullet \\ \hline \end{array}$$

$$\begin{array}{r} 13. \ \triangle \triangle \triangle \\ \hline \end{array}$$

$$\begin{array}{r} 14. \ \star \star \star \\ \hline \end{array}$$

$$\begin{array}{r} 15. \ \square \square \square \square \\ \hline \end{array}$$

Week 8, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by fives from 5 to 100 using the hundreds chart.

## Development

### Activity 1 Operations: Addition

- Draw:** Write  $338 + 245$  on the board.
- Demonstrate:** Show how to arrange it vertically and work it out by regrouping.

$$\begin{array}{r} 1 \\ 338 \\ + 245 \\ \hline 583 \end{array}$$

(Start with the ones, then the tens, then the hundreds. 8 ones + 5 ones = 13 ones. Regroup 13 ones as 1 ten and 3 ones. Take the ten to the tens column. 1 ten + 3 tens + 4 tens = 8 tens. 3 hundreds + 2 hundreds = 5 hundreds.

- Draw:** Write  $236 + 192$  on the board.
- Guide:** Work with pupils to solve it by arranging and regrouping 9 tens + 3 tens = 12 tens as 1 hundred and 2 tens.

$$\begin{array}{r} 1 \\ 236 \\ + 192 \\ \hline 428 \end{array}$$

### Activity 2 Operations: Number patterns

- Draw:** Write 35, 37, 39, \_\_, 43  
95, 93, 91, \_\_, 87
- Guide:** Work out with the pupils in counting forwards and backwards by twos to write the missing numbers in the patterns below using the hundreds chart:  
35, 37, 39, 41, 43  
95, 93, 91, 89, 87

### Activity 3 Operations: Number patterns

- Draw:** Write 40, 50, 60, 70, \_\_  
100, 90, 80, 70, \_\_
- Guide:** Work with pupils to count by tens forwards and backwards and write the next numbers in the patterns below:  
40, 50, 60, 70, (80)  
100, 90, 80, 70 (60)

## Classwork

- Pupils to work out the activities on page 39.

## Conclusion

- Inform the pupils that 36 can be regrouped as 2 tens 16 ones.
- Ask pupils to say how 24, 32, 58 and 70 can be regrouped in the same way e.g. 24 can be regrouped as 1 tens and 14 ones.

## Homework

### Add

$$\begin{array}{r} 1. \quad 325 \\ + 158 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 447 \\ + 91 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 864 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 627 \\ + 280 \\ \hline \end{array}$$

### Write the next number

5. 60, 70, 80, 90, \_\_

6. 40, 30, 20, 10, \_\_



## Work out.

$$\begin{array}{r} 1. \quad 148 \\ + 123 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 137 \\ + 271 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 489 \\ + 7 \\ \hline \end{array}$$

## Arrange vertically and add.

$$4. \quad 904 + 29 = \underline{\quad}$$

$$5. \quad 671 + 82 = \underline{\quad}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

## Write the missing number.

6. 71, 73, 75, \_\_, 79

7. 91, 89, 87, \_\_, 83

## Write the next number.

8. 0, 10, 20, 30, 40, \_\_, \_\_, \_\_

9. 60, 70, 80, 90, \_\_, \_\_, \_\_

Week 8, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count forwards and backwards by twos to find the missing numbers in the following patterns: 63, 65, 67, \_\_, 71; 51, 49, 47, \_\_, 43.

## Development

### Activity 1 Operations: Addition

- Draw:** Write  $407 + 288$  on the board.
- Demonstrate:** Show how to arrange and work out  $407 + 288$  by regrouping.

$$\begin{array}{r} 1 \\ 4 \ 0 \ 7 \\ + 2 \ 8 \ 8 \\ \hline 6 \ 9 \ 5 \end{array}$$

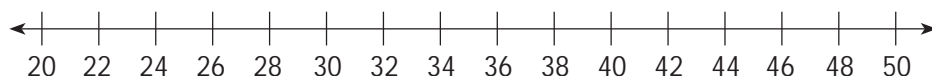
(Start with the ones, then the tens, then the hundreds. 7 ones + 8 ones = 15 ones. Regroup 15 ones as 1 ten and 5 ones. Take the ten to the tens column. 1 ten + 0 tens + 8 tens = 9 tens. 4 hundreds + 2 hundreds = 6 hundreds).

- Draw:** Write  $125 + 84$  on the board.
- Guide:** Work with pupils to arrange and solve by regrouping  $2 \text{ tens} + 8 \text{ tens} = 10 \text{ tens}$  as 1 hundred and 0 tens.

$$\begin{array}{r} 1 \\ 1 \ 2 \ 5 \\ + 8 \ 4 \\ \hline 2 \ 0 \ 9 \end{array}$$

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw a number line by twos from 20 to 50.



- Demonstrate:** Use it to order the numbers 25, 32, 20, 39 from least to greatest (20, 25, 32, 39)

- Remind pupils that the number to the right of another on the number line is always greater than the one on the left.
- Guide:** Work with pupils to use the number line to order the numbers 30, 38, 23, 25 from least to greatest using the number line.

### Activity 3 Whole numbers: Counting by 10's

- Draw:** Draw 4 rows of 10 dots and 4 extra dots as shown:



- Guide:** Have pupils count the four rows by tens then add the extra dots  $\rightarrow 10, 20, 30, 40, 41, 42, 43, 44$ .

## Classwork

- Pupils to work out the activities on page 40.

## Conclusion

- Write  $456 + 9 =$ . Guide pupils solve the problem.

## Homework

### Subtract

$$1. \quad \begin{array}{r} 7 \ 6 \ 6 \\ + 1 \ 0 \ 8 \\ \hline \end{array}$$

$$2. \quad \begin{array}{r} 8 \ 4 \ 6 \\ + 7 \ 3 \\ \hline \end{array}$$

$$3. \quad \begin{array}{r} 5 \ 5 \ 3 \\ + 7 \ 0 \\ \hline \end{array}$$

$$4. \quad \begin{array}{r} 4 \ 7 \ 6 \\ + 1 \ 9 \\ \hline \end{array}$$

### Order from least to greatest

5. 54, 30, 31, 56 \_\_\_\_\_ 6. 27, 23, 14, 11 \_\_\_\_\_



## Work out.

$$1. \quad \begin{array}{r} 324 \\ + 173 \\ \hline \end{array}$$

$$2. \quad \begin{array}{r} 438 \\ + 107 \\ \hline \end{array}$$

## Arrange vertically and add.

$$3. \quad 121 + 193 = \underline{\hspace{2cm}}$$

$$4. \quad 872 + 19 = \underline{\hspace{2cm}}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

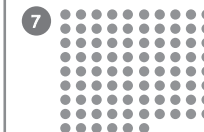
$$\begin{array}{r} + \\ \hline \end{array}$$

## Arrange from least to greatest.

$$5. \quad \boxed{37} \ \boxed{33} \ \boxed{35} \ \boxed{39}$$

$$6. \quad \boxed{31} \ \boxed{23} \ \boxed{27} \ \boxed{35}$$

## Write the number of dots.



Week 8, Day 3:

Duration:

Roll:

Remarks:



## Introduction

- Ask pupils to work out the following facts orally  
 $3 + 7 = \underline{\quad}$ ,  $8 - 5 = \underline{\quad}$ ,  $5 + 6 = \underline{\quad}$ ,  
 $9 - 3 = \underline{\quad}$ ,  $11 - 9 = \underline{\quad}$

## Development

### Activity 1 Operations: Equivalence

- Draw:** Write  $4 + 4 = 2 + \underline{\quad}$  on the board.
- Demonstrate:** Show how to balance the statement as shown below:

$$\begin{array}{r} 4 + 4 = 2 + \underline{\quad} \\ \swarrow \quad \searrow \\ 8 \quad \quad 8 \end{array} \quad \begin{array}{l} \text{– Add the left side to get 8. (4 + 4 = 8)} \\ \text{– both sides of the equation must be equal to 8.} \\ \text{• } 4 + 4 = 8 \\ \text{• } 2 + \underline{6} = 8 \end{array} \quad \begin{array}{l} \text{– find the number you add to 2 to get 8. (2 + 6 = 8) balance to make equal } 4 + 4 = 2 + 6 \end{array}$$

- Guide:** Work with pupils to balance the following statement on the board:

$$5 + 4 = \underline{\quad} + 2. \quad (7)$$

### Activity 2 Measurement: Time

- Demonstrate:** Remind pupils about telling time; quarter past and quarter to.
- Have 2 clock faces showing quarter past 2 and quarter to 12.



- Guide:** Have pupils discuss and tell the time on each clock face.
- Draw:** Write the time in words on the board. (quarter past 2 and quarter to 12)

### Activity 3 Operations: Number patterns

- Draw:** Write 40, 45, 50, 55, 60, 65; 34, 36, 38, 40, 42, 44 on the board.
- Guide:** Work with pupils to count by twos and fives and write the next numbers in the patterns.  
40, 45, 50, 55, 60, 65    34, 36, 38, 40, 42, 44

## Classwork

- Pupils to work out activities on page 41.

## Conclusion

- Draw 5 rows of 10 dots and 3 extra dots.



Have pupils count the 5 rows by tens then add the 3 dots → 10, 20, 30, 40, 50, 51, 52, 53.

## Homework

### Balance to make equal

- $3 + 3 = 2 + \underline{\quad}$
- $5 + 2 = 3 + \underline{\quad}$
- $7 + 5 = 4 + \underline{\quad}$
- $6 + 6 = 1 + \underline{\quad}$

### Write the next numbers

- 75, 80, 85, 90, 95, 100
- 84, 86, 88, 90, 92, 94

### Draw a clock face showing:

- Quarter to 7
- Quarter past 11



## Order from greatest to least.

1 39 31 35 29 2 23 33 27 35

## Balance to make equal.

3  $7 + 3 = 4 + \underline{\quad}$  4  $8 + \underline{\quad} = 5 + 5$

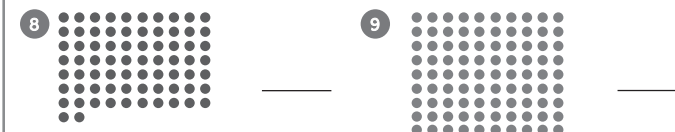
## Write the time.



## Write the next numbers.

7 72, 74, 76, 78, 80, 82, 84, 86

## Write the number of dots.



Week 8, Day 4:	Duration:	Roll:
_____	_____	_____
Remarks: _____		

## Introduction

- Have pupils stand and sit as they count by twos from 50 to 100.

## Development

### Activity 1 Measurement: Time

- Demonstrate:** Review with pupils about telling time; quarter past and quarter to.
- Have 2 clock faces showing quarter past 8 and quarter to 11.
- Guide:** Work with pupils in reading and telling time on each clock face.
- Let the pupils write the time in words in their books. (Quarter past 8, Quarter past 11).

### Activity 2 Operations: Subtraction

- Demonstrate:** Show pupils how to work out  $265 - 33$  on the board.

$$\begin{array}{r} 265 \\ - 33 \\ \hline 232 \end{array}$$

(Subtract the ones first, then the tens then the hundreds; 5 ones – 3 ones = 2 ones, 6 tens – 3 tens = 3 tens, 2 hundreds – 0 hundreds = 2 hundreds)

- Guide:** Show pupils to work out  $482 - 170 = \underline{\quad}$  by arranging it vertically then subtracting the ones first, followed by tens then hundreds.

### Activity 3 Operations: Addition and subtraction

- Draw:** Write the word problem, "June has 30 days, July has 31 days. How many days are in June and July altogether?"
- Guide:** Work with pupils to identify whether to use addition or subtraction in the word problem.
- Draw:** Write the number sentence and work it out  
→  $30 + 31 = \underline{61 \text{ days}}$

- Draw:** Write the word problem "There are 35 pupils playing. 16 pupils go home. How many pupils are left playing?"
- Guide:** Work with pupils to write the number sentence and work it out

## Classwork

- Pupils to work out activities on page 42.

## Conclusion

- Write  $345 - 31$  on the board. Arrange the problem vertically and guide the pupils to solve this problem.

## Homework

### Balance to make equal

- $3 + 5 = \underline{\quad} + 2$
- $7 + 4 = 6 + \underline{\quad}$

### Subtract

- $456 - 121 =$
- $837 - 23 =$

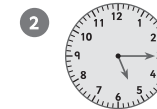
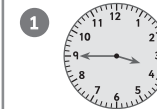
### Add

- $234 + 27 =$
- $345 + 182 =$
- Mother had 16 bananas. She gave 7 bananas to Jane. How many bananas was she left with?

**Note:** Remember to give the weekly test!



## Write the time.



## Work out.

$$\begin{array}{r} 347 \\ - 123 \\ \hline \end{array}$$

$$\begin{array}{r} 189 \\ - 35 \\ \hline \end{array}$$

$$\begin{array}{r} 463 \\ - 201 \\ \hline \end{array}$$

## Work out.

- Okoth wants to buy 27 books. He has bought 14 books. How many more books must he buy? \_\_\_\_\_ books
- There are 26 people in a bus. Then 13 people enter the bus. How many people are in the bus? \_\_\_\_\_ people

## Draw the tallies.

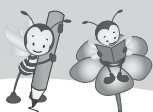


Week 8, Day 5:

Duration:

Roll:

Remarks:



## Speed Test 2

Work out:

$11 + 1 = \underline{\quad}$

$16 - 1 = \underline{\quad}$

$7 + 11 = \underline{\quad}$

$4 + 14 = \underline{\quad}$

$15 - 2 = \underline{\quad}$

$13 + 3 = \underline{\quad}$

$16 - 5 = \underline{\quad}$

$6 + 13 = \underline{\quad}$

$14 - 2 = \underline{\quad}$

$4 + 11 = \underline{\quad}$

$18 - 6 = \underline{\quad}$

$3 + 10 = \underline{\quad}$

$13 - 3 = \underline{\quad}$

$15 + 2 = \underline{\quad}$

$17 - 4 = \underline{\quad}$

$1 + 14 = \underline{\quad}$

$19 - 5 = \underline{\quad}$

$6 + 10 = \underline{\quad}$

$17 - 6 = \underline{\quad}$

$11 + 7 = \underline{\quad}$

$18 - 4 = \underline{\quad}$

$13 + 4 = \underline{\quad}$

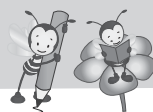
$18 - 7 = \underline{\quad}$

$2 + 11 = \underline{\quad}$

$14 - 4 = \underline{\quad}$

$13 + 0 = \underline{\quad}$

$19 - 7 = \underline{\quad}$



## Check-Up Quiz, Weeks 5–8

Write the next numbers.

1 86, 88, 90,

\_\_\_\_, \_\_\_\_,

Order from least to greatest.

2 40 32 38 36

\_\_\_\_, \_\_\_\_ , \_\_\_\_ , \_\_\_\_

Write the missing number.

3 95, 93, \_\_, 89

Circle the greater number.

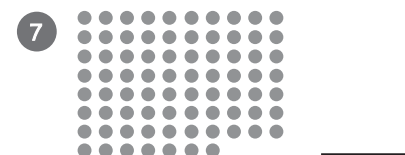
4 34      38

Add and subtract.

5 
$$\begin{array}{r} 19 \\ + 17 \\ \hline \end{array}$$

6 
$$\begin{array}{r} 32 \\ - 14 \\ \hline \end{array}$$

Write the number of dots.



Draw tallies.



Balance to make equal.

9 \_\_\_\_ + 2 = 1 + 4

Write the time.



## Introduction

- Work out with pupils the following facts orally.

$$6 + 7 = \_, \quad 11 - 8 = \_, \quad 10 + 7 = \_$$

$$9 + 9 = \_, \quad 12 - 8 = \_, \quad 13 - 6 = \_$$

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show pupils how to work out  $311 + 28$  on the board.

$$\begin{array}{r} 3 \quad 1 \quad 1 \\ + 8 \quad 7 \\ \hline 3 \quad 9 \quad 8 \end{array}$$

(Add the ones first, then the tens then the hundreds; 1 ones + 7 ones = 8 ones, 1 ten + 8 tens = 9 tens, 3 hundreds + 0 hundreds = 3 hundreds)

- Guide:** Work with pupils to work out  $425 - 104 = \_$  by arranging it vertically then subtracting the ones first, followed by tens then hundreds.

### Activity 2 Operations: Subtraction

- Demonstrate:** Show how to work out  $46 - 33$  by subtracting the tens and ones separately as shown:

$$46 - 33 \longrightarrow 46 = 4 \text{ tens and } 6 \text{ ones} = 40 \text{ and } 6 \\ \longrightarrow 33 = 3 \text{ tens and } 3 \text{ ones} = 30 \text{ and } 3$$

$$\begin{array}{l} \text{Tens} \longrightarrow 40 - 30 = 10 \\ \text{Ones} \longrightarrow 6 - 3 = 3 \end{array} \quad \left. \begin{array}{l} 10 \\ 3 \end{array} \right\} \begin{array}{l} \text{Tens} \\ \text{Ones} \end{array} \quad \begin{array}{l} 10 + 3 = 13 \end{array}$$

- Guide:** Work out with pupils  $76 - 41$  by subtracting the tens and ones separately as shown:

$$76 - 41 \longrightarrow 76 = 7 \text{ tens and } 6 \text{ ones} = 70 \text{ and } 6 \\ \longrightarrow 41 = 4 \text{ tens and } 1 \text{ ones} = 40 \text{ and } 1$$

$$\begin{array}{l} \text{Tens} \longrightarrow 70 - 40 = 30 \\ \text{Ones} \longrightarrow 6 - 1 = 5 \end{array} \quad \left. \begin{array}{l} 30 \\ 5 \end{array} \right\} \begin{array}{l} \text{Tens} \\ \text{Ones} \end{array} \quad \begin{array}{l} 30 + 5 = 35 \end{array}$$

### Activity 3 Whole numbers: Counting

- Draw:** Draw different groups of objects between 1 and 10.
- Guide:** Work with pupils to draw tallies to represent the number of objects.

## Classwork

- Pupils to work out activities on page 45.

## Conclusion

- Write  $67 - 21 = \_$  on the board.
- Have pupils solve the problem by subtracting the tens and ones separately.

## Homework

$$1. \quad 28 - 17 = \_$$

$$2. \quad 46 - 20 = \_$$

$$3. \quad 37 - 16 = \_$$

$$4. \quad 95 - 72 = \_$$

$$5. \quad \begin{array}{r} 7 \quad 6 \quad 8 \\ - 1 \quad 0 \quad 4 \\ \hline \end{array}$$

$$6. \quad \begin{array}{r} 8 \quad 4 \quad 6 \\ + 7 \quad 3 \\ \hline \end{array}$$

$$7. \quad \begin{array}{r} 5 \quad 5 \quad 3 \\ - 7 \quad 0 \\ \hline \end{array}$$

$$8. \quad \begin{array}{r} 4 \quad 7 \quad 6 \\ + 1 \quad 9 \\ \hline \end{array}$$



## Work out.

$$1. \quad \begin{array}{r} 342 \\ + 127 \\ \hline \end{array}$$

$$2. \quad 38 - 27 = \_$$

$$3. \quad 34 - 12 = \_$$

$$4. \quad \begin{array}{r} 479 \\ - 131 \\ \hline \end{array}$$

$$5. \quad \begin{array}{r} 478 \\ - 30 \\ \hline \end{array}$$

$$6. \quad \begin{array}{r} 327 \\ - 12 \\ \hline \end{array}$$

$$7. \quad 29 - 13 = \_$$

$$8. \quad 47 - 25 = \_$$

## Draw the tallies.

$$9. \quad \begin{array}{l} \text{●●●} \quad \text{_____} \quad 12 \quad \text{_____} \quad \begin{array}{c} \triangle \triangle \triangle \\ \triangle \end{array} \quad \text{_____} \\ \begin{array}{c} \triangle \triangle \triangle \\ \triangle \triangle \triangle \end{array} \quad \text{_____} \quad \begin{array}{c} \blacksquare \blacksquare \blacksquare \end{array} \quad \text{_____} \quad 4 \quad \text{_____} \end{array}$$

Week 9, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Work out with pupils to identify the next number by counting forward and backwards by tens and hundreds in the pattern.

900, 800, 700, \_\_\_\_ 160, 170, 180, \_\_\_\_

## Development

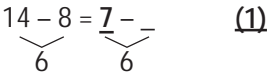
### Activity 1 Operations: Subtraction

- Demonstrate:** Show how to subtract  $22 - 5$  by breaking apart as shown below:  
 $22 - 5 \rightarrow$  underline the ones in the first number  
 $22 - 5 = 22 - \underline{\quad} - \underline{\quad} \rightarrow$  write two dashes  
 $22 - 5 = 22 - \underline{2} - \underline{\quad} \rightarrow$  fill in the first dash with the number underlined in the ones place  
 $22 - 5 = 22 - 2 - \underline{3} \rightarrow$  fill the second dash with what is left from 5. ( $5 - 2 = 3$ )
- Complete the subtraction:  
 $22 - 5 = 22 - \underline{2} - \underline{3} = \underline{17}$
- Guide:** Work with pupils to solve  $23 - 7$  by breaking apart.

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Show how to use place value to order the numbers below from greatest to least.  
 $25, 28, 11, 18 \rightarrow 28, 25, 18, 11$
- Guide:** Work with pupils and use place value to order the numbers  $34, 31, 55, 58$  from greatest to least. =  $58, 55, 34, 31$

### Activity 3 Operations: Equivalence

- Demonstrate:** Show how to balance the statement below on the board:  
 $(14 - 8 = 7 - \underline{\quad})$   
 $14 - 8 = \underline{7} - \underline{\quad} \quad (1)$   

- Guide:** Work with pupils to balance the statement  $16 - 5 = 18 - \underline{\quad}$  on the board.

## Classwork

- Pupils to work out activities on page 46.

## Conclusion

- Write  $32 - 9$  on the board.
- Have pupils solve the subtraction problem by breaking it apart.

## Homework

### Subtract by breaking apart

- $23 - 7 = 23 - \underline{3} - \underline{4} = \underline{\quad}$
- $16 - 8 = 16 - \underline{6} - \underline{2} = \underline{\quad}$
- $25 - 9 = 25 - \underline{\quad} - \underline{\quad} = \underline{\quad}$
- $14 - 9 = 14 - \underline{\quad} - \underline{\quad} = \underline{\quad}$

### Order from greatest to least

- $36, 30, 40, 49$  \_\_\_\_\_
- $55, 70, 52, 73$  \_\_\_\_\_

### Balance to make equal

- $9 - 3 = 7 - \underline{\quad}$
- $19 - 5 = 21 - \underline{\quad}$



## Subtract by breaking apart.

1  $22 - 8 =$       2  $15 - 9 =$   
 \_\_\_\_ - \_\_\_\_ - \_\_\_\_ = \_\_\_\_      \_\_\_\_ - \_\_\_\_ - \_\_\_\_ = \_\_\_\_

## Write the next number.

3  $0, 100, 200, 300, \underline{\quad}$

## Balance to make equal.

4  $6 - 1 = 9 - \underline{\quad}$       5  $8 - 3 = 6 - \underline{\quad}$

## Order from greatest to least.

6  $32, 27, 34, 29$       7  $37, 31, 40, 39$

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_      \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

Week 9, Day 2:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Draw a clock face showing half past 3 and have pupils read and tell the time.
- Remind pupils about the positions of the hour and the minute hand when it is half past.

## Development

### Activity 1 Operations: Subtraction

- **Demonstrate:** Show how to subtract  $22 - 7$  by breaking apart as shown below:

$22 - 7 \rightarrow$  underline the ones in the first number

$22 - 7 = 22 - \underline{\quad} - \underline{\quad} \rightarrow$  write two dashes

$22 - 7 = 22 - \underline{2} - \underline{\quad} \rightarrow$  fill in the first dash with the number underlined in the ones place.

$22 - 7 = 22 - 2 - \underline{5} \rightarrow$  fill the second dash with what is left from 7. ( $7 - 2 = 5$ )

- Complete the subtraction:  
 $22 - 7 = 22 - \underline{2} - \underline{5} = \underline{15}$
- **Guide:** Work with pupils to work out  $21 - 6$  by breaking apart.

### Activity 2 Operations: Number patterns

- **Guide:** Work with pupils to count forwards and backwards by tens and write the next numbers in the following patterns.

50, 40, 30, 20,  $\underline{\quad}$  (10)

60, 70, 80, 90,  $\underline{\quad}$  (100)

### Activity 3 Operations: Addition

- **Guide:** Work with pupils to work out  $425 + 104 = \underline{\quad}$  by arranging it vertically then adding the ones first, followed by tens then hundreds.

## Classwork

- Pupils to work out the activities on page 47.

## Conclusion

- Write  $28 - 9$  on the board.
- Have pupils work out the subtraction by breaking it apart.

## Homework

### Subtract by breaking apart.

1.  $22 - 6 = 22 - 2 - 4 = \underline{\quad}$
2.  $21 - 8 = 21 - 1 - 7 = \underline{\quad}$
3.  $23 - 8 = 23 - \underline{\quad} - \underline{\quad} = \underline{\quad}$
4.  $21 - 6 = 21 - \underline{\quad} - \underline{\quad} = \underline{\quad}$

### Write the next number

5. 40, 50, 60,  $\underline{\quad}$
6. 40, 30, 20,  $\underline{\quad}$

Work out

7.  $234 + 123 = \underline{\quad}$
8.  $234 + 49 = \underline{\quad}$



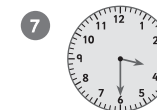
## Subtract by breaking apart.

1.  $31 - 5 = \underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$
2.  $23 - 8 = \underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$
3.  $22 - 7 = \underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$
4.  $21 - 6 = \underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$

## Write the next number.

5. 30, 40, 50, 60,  $\underline{\quad}$

## Write the time.



## Add.

$$\begin{array}{r} 435 \\ + 122 \\ \hline \end{array}$$

$$\begin{array}{r} 342 \\ + 71 \\ \hline \end{array}$$

Week 9, Day 3:

Duration:

Roll:

Remarks: \_\_\_\_\_



## Introduction

- Draw 3 rows of 10 dots on the board.
- Ask pupils count by tens up to 100 and write the number of dots.

## Development

### Activity 1 Operations: Number patterns

- **Demonstrate:** Show how to use the hundreds chart to count by tens from 5 to 100 and backward from 100 to 5.
- **Guide:** Work with pupils to count forwards by fives up to 100 and backwards from 100 to 5.
- **Guide:** Work with pupils to count forwards and backwards by fives and write the missing number in the patterns below;  
45, 50, \_\_, 60, 65 (55)  
35, 30, \_\_, 20, 15 (25)

### Activity 2 Operations: Number patterns

- **Guide:** Work with pupils to count forwards and backwards by ones and write the next numbers in the patterns below;  
9, 8, 7, 6, \_\_ (5)  
86, 87, 88, 89, \_\_ (90)  
99, 98, 97, \_\_ (96)

### Activity 3 Whole numbers: Counting

- **Demonstrate:** Show how to draw 5 rows of 10 dots on the board and show how to count by tens to write number of dots.
- **Guide:** Work with pupils to count by tens and write the number of dots.

### Activity 4 Operations: Subtraction

- **Guide:** Work with pupils to work out  $388 - 47 =$  \_\_ by arranging it vertically then subtracting the ones first, followed by tens then hundreds.

## Classwork

- Pupils to work out the activities on page 48.

## Conclusion

Write 345-24. Arrange the problem vertically and guide the pupils to solve this problem.

## Homework

Write the missing numbers.

1. 25, 20, \_\_, 10, 5
2. 45, 50, \_\_, 60, 65
3. 35, 40, \_\_, 50, 55
4. 95, 9, \_\_, 80, 75

Write the next numbers.

5. 93, 92, 91, 90, \_\_
6. 77, 76, 75, 74, \_\_

Subtract

7.  $284 - 122 =$
8.  $475 - 235 =$



Write the missing or next number.

1. 25, 30, \_\_, 40, 45, \_\_, 55, \_\_
2. 80, 75, \_\_, 65, 60, \_\_, 50, \_\_
3. 95, 90, \_\_, 80, 75, \_\_, 65, \_\_
4. 98, 97, 96, 95, \_\_, \_\_, \_\_
5. 72, 71, 70, 69, \_\_, \_\_, \_\_

Count and write the number of dots.

6.  \_\_
7.  \_\_

Work out.

8. 
$$\begin{array}{r} 434 \\ - 122 \\ \hline \end{array}$$
9. 
$$\begin{array}{r} 149 \\ - 3 \\ \hline \end{array}$$

Week 9, Day 4:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Give different groups of pupils number cards to order the numbers from greatest to least.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Show how to use the hundreds chart to count by fives from 5 to 100 and from 100 to 5.
- Guide:** Work with pupils to count by fives from 5 to 100 and from 100 to 5.

- Guide:** Work with pupils to count forwards and backwards by fives and write the missing numbers in the patterns below:

35, 30, \_\_, 20, 15 (25)

45, 50, \_\_, 60, 65 (55)

- Guide:** Work with pupils to count backwards by ones and write the next numbers in the patterns below;

76, 75, 74, 73, \_\_ (72)

13, 12, 11, 10, \_\_ (9)

### Activity 2 Operations: Subtraction

- Demonstrate:** Show pupils how to work out  $439 - 16$  on the board.

$$\begin{array}{r} 439 \\ - 16 \\ \hline 423 \end{array}$$

(Subtract the ones first, then the tens then the hundreds; 9 ones – 6 ones = 3 ones, 3 tens – 1 tens = 2 tens, 4 hundreds – 0 hundreds = 4 hundreds)

- Guide:** Work with pupils to work out  $425 - 104 =$  \_\_ by arranging it vertically then subtracting the ones first, followed by tens then hundreds.

## Classwork

- Pupils to work out the activities on page 49.

## Conclusion

- Ask pupils to use their hundreds chart to count backwards by ones from 99 to 70.

## Homework

### Add or subtract

1. $\begin{array}{r} 157 \\ + 152 \\ \hline \end{array}$	2. $\begin{array}{r} 389 \\ + 150 \\ \hline \end{array}$	3. $\begin{array}{r} 23 \\ - 18 \\ \hline \end{array}$
4. $\begin{array}{r} 466 \\ - 22 \\ \hline \end{array}$	5. $\begin{array}{r} 663 \\ + 273 \\ \hline \end{array}$	6. $\begin{array}{r} 457 \\ - 132 \\ \hline \end{array}$

**Note:** Remember to give the weekly test!

### Teacher Tip

From: Teacher Ogwel

Teaching math should be focused on pupils' understanding as well as content coverage. Continuously assess your pupils to determine when it is necessary to re-teach certain concepts.



## Write the missing or next number.

1 40, 45, \_\_, 55, 60, \_\_, 70, 75, \_\_

2 70, 65, \_\_, 55, 50, \_\_, 45, 40, \_\_

3 93, 92, 91, 90, \_\_, \_\_, \_\_, \_\_

4 74, 73, 72, 71, \_\_, \_\_, \_\_, \_\_

5 80, 79, 78, 77, \_\_, \_\_, \_\_, \_\_

## Work out.

6  $\begin{array}{r} 370 \\ - 120 \\ \hline \end{array}$

7  $\begin{array}{r} 192 \\ - 161 \\ \hline \end{array}$

8  $\begin{array}{r} 418 \\ - 14 \\ \hline \end{array}$

Week 9, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Write the numbers 43, 66, 87, 35 on the board and have pupils identify them as you point.

## Development

### Activity 1 Operations: Addition

- Demonstrate:** Show how to work out  $26 + 37$  by regrouping  

$$\begin{array}{r} 1 \\ 26 \\ + 37 \\ \hline 63 \end{array}$$
 (6 + 7 = 13. Regroup 13 ones as 1 tens and 3 ones. Write 3 in the ones column and add the 1 tens to the tens column to get 6)
- Guide:** Work with pupils to work out  $55 + 18$  by regrouping  $5 + 8 = 13$  as 1 tens and 3 ones.

### Activity 2 Operations: Subtraction

- Demonstrate:** Show how to work out  $35 - 16$  by regrouping  

$$\begin{array}{r} 215 \\ - 16 \\ \hline 19 \end{array}$$
 (Regroup 35 as 2 tens and 15 ones. Subtract 6 from 15 to get 9. Subtract 1 tens from 2 tens to get 1 tens).
- Guide:** Work with pupils to  $40 - 12$  by regrouping 40 as 3 tens and 10 ones.

### Activity 3 Whole numbers: Comparing numbers

- Demonstrate:** Review how to order numbers from greatest to least using place value.
- Emphasize the need to check the value of the digit in the tens place first then the ones place.
- Guide:** Work with pupils to order 16, 38, 36, 11 from greatest to least using place value  $\Rightarrow 38, 36, 16, 11$ .

## Classwork

- Pupils to work out activities or page 50.

## Conclusion

- Write 78, 24, 56, 19 on the board.
- Have pupils order the numbers from least to greatest.

## Homework

### Add or subtract

- |  |  |  |
|--|--|--|
| 1. $\begin{array}{r} 26 \\ + 14 \\ \hline \end{array}$ | 2. $\begin{array}{r} 64 \\ + 28 \\ \hline \end{array}$ | 3. $\begin{array}{r} 57 \\ + 17 \\ \hline \end{array}$ |
| 4. $\begin{array}{r} 20 \\ - 7 \\ \hline \end{array}$  | 5. $\begin{array}{r} 33 \\ - 15 \\ \hline \end{array}$ | 6. $\begin{array}{r} 92 \\ - 36 \\ \hline \end{array}$ |

### Teacher Tip

From: Teacher Linda

Regrouping puts emphasis on place value so that pupils are able to understand why they 'carry' or 'borrow' numbers. It will therefore be clear to them that 13 is 1 tens and 3 ones OR 50 is 4 tens and 10 ones.

## Work out.

- |  |  |  |
|--|--|--|
| 1. $\begin{array}{r} 19 \\ + 17 \\ \hline \end{array}$ | 2. $\begin{array}{r} 23 \\ + 17 \\ \hline \end{array}$ | 3. $\begin{array}{r} 16 \\ + 18 \\ \hline \end{array}$ |
| 4. $\begin{array}{r} 32 \\ - 14 \\ \hline \end{array}$ | 5. $\begin{array}{r} 31 \\ - 26 \\ \hline \end{array}$ | 6. $\begin{array}{r} 32 \\ - 23 \\ \hline \end{array}$ |

## Order from greatest to least.

7. 21 33 27 36 8. 40 35 37 31

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

Week 10, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count forwards and backwards by tens from 10 to 100 and from 100 to 10.

## Development

### Activity 1 Geometry: Shapes

- Demonstrate:** Show how to draw different shapes on the board.
- Guide:** Work with different pupils to draw the shapes on the board; (circle, triangle, square, rectangle.)
- Guide:** Provide paper cut outs for the different shapes and guide pupils in identifying specific shapes.

### Activity 2 Operations: Number patterns

- Demonstrate:** Show how to count forward and backward by tens to fill the missing numbers in a pattern.
- Guide:** Work with pupils to count forwards and backwards by tens and write the missing number in the patterns below:

40, 50, 60, \_\_, 80 (70)

100, 90, \_\_, 70, 60 (80)

### Activity 3 Operations: Addition and subtraction

- Draw:** Write the word problem "Amina has 18 stones, Njeri has 7 stones. How many stones do they have altogether?"
- Demonstrate:** Show how to work out the word problem by using real objects and writing the number sentence  $\rightarrow 18 + 7 = \underline{25 \text{ stones}}$ .

- Draw:** Write the word problem, "Ruto has 18 stones, he gave Charo 7 stones. How many stones does Ruto have now?"
- Guide:** Work with pupils to work out the word problem by matching real objects and writing the number sentence. ( $18 - 7 = \underline{11 \text{ stones}}$ )

## Classwork

- Pupils to work out the activities on page 51.

## Conclusion

- Ask pupils count backwards by tens from 100 to 50.

## Homework

### Write the missing number

- 50, 40, 30, \_\_, 10
- 60, 70, 80, \_\_, 100
- 0, 10, \_\_, 30, 40
- 40, 30, 20, \_\_, 0

### Draw the shapes

- Circle
- Square
- Rectangle
- Triangle
- John had 18 oranges. He ate 3 oranges. How many oranges did he have left?
- A shopkeeper had 20 sweets. He sold 11 sweets. How many sweets is the shopkeeper left with?



## Draw the shape.

- rectangle
- circle
- triangle
- square

## Write the missing number.

- 0, 10, \_\_, 30, 40
- 90, 80, 70, \_\_, 50

## Solve the problem. Use addition or subtraction.

- There are 18 birds on a tree. Then 16 more birds join them on the same tree. How many birds are on the tree now?  
\_\_\_\_\_ birds
- Jebet has 35 marbles. She gave her sister 27 marbles. How many marbles does Jebet have now?  
\_\_\_\_\_ marbles

Week 10, Day 2:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Display the hundreds chart and demonstrate how to count backwards by twos from 30 to 2. Let the pupils count after you.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count by twos, fives or tens to write the next or missing numbers in the patterns below:

26, 24, 22, \_\_ (20)

10, 15, 20, \_\_ (25)

0, \_\_, 20, 30 (10)











50, 40, \_\_, 20 (30)

6, 8, 10, \_\_ (12)

30, 25, 20, \_\_ (15)

### Activity 2 Whole numbers: Ordinal numbers

- Demonstrate:** Arrange 10 different objects on the table on a straight line and show how to put them in position 1 to 10
  - Tell the pupils that position 1 is also called 1<sup>st</sup> position, position 2 is 2<sup>nd</sup> position, position 3 is 3<sup>rd</sup> position...10th position.
  - Arrange 10 pupils in front of the class in a straight line and ask the pupils to count from left to right.
  - Let pupils say the names of pupils occupying the 1<sup>st</sup> up to 10<sup>th</sup> position.
- Draw:** Draw a table on the board showing the ordinal number of each object in the table as shown.

									
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>

- Demonstrate:** Show the pupils how the different objects drawn on the board occupy different positions.
- Guide:** Guide the pupils to find the positions of different shapes on the board.

## Classwork

- Pupils to work out the activities on page 52.

## Conclusion

- Arrange 10 pupils in front of the class in a straight line and ask the pupils to say the names of the pupils occupying the 1<sup>st</sup> to the 10<sup>th</sup> positions.

## Homework

### Write the next or missing number

- 40, 50, 60, \_\_
- 14, 12, 10, \_\_
- 5, 10, 15, \_\_
- 70, 80, 90, \_\_



- Circle the 3<sup>rd</sup> shape
- Underline the 5<sup>th</sup> shape
- What position is the rectangle?



## Write the next number.

1 70, 65, 60, \_\_ 2 82, 80, 78, \_\_

3 96, 94, 92, \_\_ 4 85, 80, 75, \_\_

5 55, 50, 45, \_\_ 6 70, 68, 66, \_\_

## Write the missing number.

7 50, 60, \_\_, 80, 90

8 100, 90, 80, \_\_, 60

## Use the shapes below for numbers 9 and 10.



- Circle the fourth (4th) shape.
- Draw a line under the eighth (8th) shape.

Week 10, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to work out the following facts orally  
 $6 + 6 = \underline{\quad}$ ,  $12 - 6 = \underline{\quad}$ ,  $7 + 7 = \underline{\quad}$ ,  
 $8 + 8 = \underline{\quad}$ ,  $16 - 8 = \underline{\quad}$

## Development

### Activity 1 Operations: Subtraction

- Demonstrate:** Show how to subtract  $12 - 6$  by breaking apart.  
 $12 - 6 \rightarrow$  Underline the ones in the first number.  
 $12 - 6 = 12 - \underline{\quad} - \underline{\quad} \rightarrow$  write the 2 dashes.  
 $12 - 6 = 12 - 2 - \underline{\quad} \rightarrow$  Fill the first dash with the number underlined.  
 $12 - 6 = 12 - 2 - 4 \rightarrow$  Fill the next dash with what is left from 6 ( $6 - 2 = 4$ )  
 Complete the subtraction:  $12 - 6 = 12 - \underline{2} - \underline{4} = \underline{6}$
- Guide:** Work with pupils to work out  $16 - 9$  by breaking apart.

### Activity 2 Whole numbers: Place value

- Draw:** Draw place value charts and write the numbers 217 and 401 besides them.
- Demonstrate:** Show how to complete the charts on the board.

	Hundreds	Tens	Ones
217	2	1	7
	Hundreds	Tens	Ones
401	4	0	1

- Emphasize on the hundreds place and that 3 digit numbers have 3 places; hundreds, tens and ones.
- Draw:** Draw place value charts and write the numbers 315 and 607 besides them.
- Guide:** Work with pupils to complete the charts on the board.

	Hundreds	Tens	Ones
315	3	1	5
	Hundreds	Tens	Ones
607	6	0	7

### Activity 3 Operations: Number patterns

- Guide:** Work with pupils to count backwards by twos and fives and complete the next number in the following patterns:  
 $20, 15, 10, \underline{\quad} (5)$   $14, 12, 10, \underline{\quad} (8)$

## Classwork

- Pupils to work out the activities on page 53.

## Conclusion

- Write 346 on the board.
- Have pupils find the place value of each digit.

## Homework

### Add or Subtract

- $9 + 6 = \underline{\quad}$
- $7 + 8 = \underline{\quad}$
- $8 + 5 = \underline{\quad}$
- $11 - 5 = \underline{\quad}$

Fill the place value chart

5. 349

Hundreds	Tens	Ones

6. 76

Hundreds	Tens	Ones

### Write the next number

- 44, 42, 40,  $\underline{\quad}$
- 45, 40, 35,  $\underline{\quad}$

### Subtract by breaking

- $16 - 9 = 16 - \underline{\quad} - \underline{\quad} = \underline{\quad}$
- $14 - 7 = 14 - \underline{\quad} - \underline{\quad} = \underline{\quad}$



## Work out.

- $9 - 5 = \underline{\quad}$
- $6 + 3 = \underline{\quad}$
- $5 + 5 = \underline{\quad}$
- $10 - 4 = \underline{\quad}$

## Subtract by breaking apart.

- $35 - 9 = \underline{\quad}$
  - $13 - 8 = \underline{\quad}$
- $\underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$   $\underline{\quad} - \underline{\quad} - \underline{\quad} = \underline{\quad}$

## Complete the place value chart.

	Hundreds	Tens	Ones
7 380			
	Hundreds	Tens	Ones
8 31			

## Write the next number.

- 92, 90, 88, 86,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$
- 70, 65, 60, 55,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$

Week 10, Day 4:	Duration:	Roll:
$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$
Remarks:	$\underline{\quad}$	$\underline{\quad}$
$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$



## Introduction

- Display clock faces showing half past 3 and half past 1.
- Let pupils read and tell the time.

## Development

### Activity 1 Operations: Number patterns

- **Draw:** Write the word problem: "Anyiro counted 40 cars on Monday, 35 cars on Tuesday, 30 cars on Wednesday. Using the pattern, how many cars will she count on Thursday?"
- **Demonstrate:** Show how to extract the pattern from the word problem and write it on the board: 40, 35, 30, \_\_\_\_
  - Explain to pupils that the number of cars is reducing by 5 each day. Therefore there is need to count backwards by fives to find the cars for Thursday.
  - Count backwards by fives and write the next number in the pattern:  
→ 40, 35, 30, 25 → 25 cars.
- **Draw:** Write the word problem: "Njeru had 10 pupils in class in January. He had 12 pupils in February and 14 pupils in March. If the pattern continues, how many pupils will he have in April?"
- **Guide:** Work with pupils to write the number pattern and count forwards by twos to get the answer → 10, 12, 14, 16 → 16 pupils.

### Activity 2 Whole numbers: Counting

- **Guide:** Have different groups of objects between 1 and 10. Work with pupils count them using tallies.

## Classwork

- Pupils to work out the activities on page 54.

## Conclusion

- Write a word problem involving patterns and work with pupils to work out the question.

## Homework

Draw tallies for the groups and numbers

2 \_\_\_\_\_

••  
•• \_\_\_\_\_

▲▲  
▲▲ \_\_\_\_\_

••••  
•••• \_\_\_\_\_

6 \_\_\_\_\_

•••••  
••••• \_\_\_\_\_

7. Juma sold 19 sweets on Saturday, 17 sweets on Sunday and 15 sweets on Monday. In that pattern, how many sweets did he sell on Tuesday?

**Note:** Remember to give the weekly test!



## Write the time.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

## Work out.

- 7 Nafula is collecting bottles. She had 6 bottles on Monday and 8 bottles on Tuesday. She had 10 bottles on Wednesday and 12 bottles on Thursday. How many bottles will Nafula have on Friday?  
\_\_\_\_\_ bottles
- 8 Ndegwa had 30 pages left to read in his book on Saturday. He had 25 pages left on Sunday. He had 20 pages left on Monday. How many pages will Ndegwa have left to read on Tuesday?  
\_\_\_\_\_ pages

## Draw tallies for the groups and numbers.

- 9 3 \_\_\_\_\_
- 9 \_\_\_\_\_ 10 \_\_\_\_\_

Week 10, Day 5:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Guide pupils to work out the following facts orally.  
 $8 + 5 = \underline{\quad}$ ,  $5 + 8 = \underline{\quad}$ ,  
 $13 - 5 = \underline{\quad}$ ,  $13 - 8 = \underline{\quad}$

## Development

### Activity 1 Operations: Number family

- Demonstration:** Have 10 triangles and use them to show pupils how to make a fact family of 10:

$$\begin{array}{ccc} \triangle\triangle\triangle & \triangle\triangle\triangle\triangle & \triangle\triangle & \triangle\triangle\triangle\triangle\triangle\triangle \\ \triangle\triangle\triangle & \triangle\triangle & \triangle\triangle & \triangle\triangle\triangle & \triangle\triangle\triangle\triangle\triangle \\ 6 + 4 = 10 & 4 + 6 = 10 \end{array}$$

$$\begin{array}{ccc} \bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc & \bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc \\ 10 - 4 = 6 & 10 - 6 = 4 \end{array}$$

- Emphasize that we have used the numbers 4, 6 and 10 to make a fact family of 10.
- Draw:** Write the four facts:  
 $6 + 4 = 10$        $4 + 6 = 10$   
 $10 - 4 = 6$        $10 - 6 = 4$
- Guide:** Work with the pupils to use the same process to form a fact family of 11 using 5, 6 and 11 to get:  
 $6 + 5 = 11$        $5 + 6 = 11$   
 $11 - 6 = 5$        $11 - 5 = 6$

### Activity 2 Operations: Number patterns

- Draw:** Write the numbers 64, 65,    , 67, 68, 69 on the board.
- Demonstrate:** Show pupils how to find the missing number through counting.
- Draw:** Write 56, 55, 54,    , 52, 51, 50,    .

- Guide:** Work with the pupils to find the missing numbers by counting backwards.

## Classwork

- Pupils to work out the activities on page 55.

## Conclusion

- Write  $7 + 8 = 15$  and  $15 - 7 = 8$ . Ask pupils to identify the missing facts from the number family of 15.

## Homework

### Complete the number family.

1.  $6 + 3 = 9$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2.  $7 + 5 = \underline{\quad}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3.  $8 + 7 = \underline{\quad}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Complete the number family.

1  $6 + 7 = \underline{\quad}$        $7 + 6 = \underline{\quad}$

$13 - 6 = \underline{\quad}$        $13 - 7 = \underline{\quad}$

2  $9 + 5 = \underline{\quad}$        $5 + 9 = \underline{\quad}$

$14 - 9 = \underline{\quad}$        $14 - 5 = \underline{\quad}$

## Write the missing numbers.

3  $72, 73, \underline{\quad}, 75, 76, \underline{\quad}, 78, 79$

4  $94, 93, 92, \underline{\quad}, 90, 89, 88, \underline{\quad}$

Week 11, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Write  $3 + 4 = 7$  and ask pupils to identify 3 other facts from the family of 7.

## Development

### Activity 1 Operations: Number family

- Demonstrate:** Have 15 sticks and use them to show pupils how to make a fact family of 15:

$$\begin{array}{c} \text{●●●●} \quad \text{●●●●●} \\ 8 + 7 = 15 \end{array} \quad \begin{array}{c} \text{●●●●●} \quad \text{●●●●} \\ 7 + 8 = 15 \end{array}$$

$$\begin{array}{c} \text{●●●●●●●} \\ 15 - 7 = 8 \end{array} \quad \begin{array}{c} \text{●●●●●●●} \\ 15 - 8 = 7 \end{array}$$

- Emphasize that we have used the numbers 8, 7 and 15 to make a fact family of 15 on the board.

- Draw:** Write the four facts:

$$\begin{array}{cc} 8 + 7 = 15 & 7 + 8 = 15 \\ 15 - 8 = 7 & 15 - 7 = 8 \end{array}$$

- Guide:** Work with the pupils to use the same process to form a fact family of 9 using 6, 3 and 9 to get:

$$\begin{array}{cc} 6 + 3 = 9 & 3 + 6 = 9 \\ 9 - 3 = 6 & 9 - 6 = 3 \end{array}$$

### Activity 2 Geometry: Patterns

- Draw:** Draw the pattern as shown on the board:

$\triangle / \triangle / \triangle / \underline{\hspace{1cm}}$

- Demonstrate:** Explain that the pattern alternates a triangle and a stick and demonstrate how to draw the next shape in the pattern:

$\triangle / \triangle / \triangle / (\triangle)$

- Draw:** Draw another pattern as shown on the board.

● \* ● \* ●  $\underline{\hspace{1cm}}$

- Guide:** Work with pupils on how to identify the next shape:

● \* ● \* ●  $\rightarrow$  ● \* ● \* ● \*

## Classwork

- Pupils to work out the activities on page 56.

## Conclusion

- Draw ○ □ △ ○ □ △  $\underline{\hspace{1cm}}$  and ask pupils to identify the next shape.

## Homework

Complete the number family:

1.  $7 + 4 = 11$

$\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$

2.  $5 + 3 = \underline{\hspace{1cm}}$

$\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$

3.  $9 + 8 = \underline{\hspace{1cm}}$

$\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}$

Draw the next shape

4. ○ △ ○ △ ○  $\underline{\hspace{1cm}}$

5.  $\triangle \square \triangle \square \triangle \square \underline{\hspace{1cm}}$



Complete the number family.

1  $9 + 6 = \underline{\hspace{1cm}}$   $6 + 9 = \underline{\hspace{1cm}}$

$15 - 9 = \underline{\hspace{1cm}}$   $15 - 6 = \underline{\hspace{1cm}}$

2  $4 + 8 = \underline{\hspace{1cm}}$   $8 + 4 = \underline{\hspace{1cm}}$

$12 - 4 = \underline{\hspace{1cm}}$   $12 - 8 = \underline{\hspace{1cm}}$

Draw the next shape in the pattern.

3  $\underline{\hspace{1cm}}$

4  $\underline{\hspace{1cm}}$

Week 11, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count backwards by ones from 99 to 70. They can use the hundreds chart in their books.

## Development

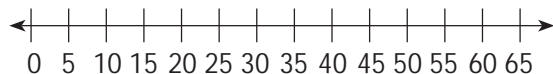
### Activity 1 Operations: Number family

- Draw:** Write the addition  $7 + 6 = \underline{\quad}$
- Guide:** Work with the pupils to work out the addition and write 3 more facts using the same numbers.

$$7 + 6 = 13, \quad 6 + 7 = 13, \\ 13 - 6 = 7, \quad 13 - 7 = 6$$

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw a number line by 5s from 5 to 65.



- Demonstrate:** Show pupils how to use the number line to order the numbers 55, 30, 65, 10, 5 from least to greatest (5, 10, 30, 55, 65).
- Emphasize that a number to the right of another number on the number line is always greater than the one on the left.
- Guide:** Work with the pupils to order 35, 50, 20, 5, 40 from least to greatest using the number line  $\rightarrow$  (5, 20, 35, 40, 50)

### Activity 3 Operations: Equivalence

- Draw:** Write  $11 + 3 = \underline{\quad} + 10$ .
- Demonstrate:** Show pupils how to balance the statement by working out  $11 + 3$  to get 14 and subtracting 10 from 14 to get the missing number.

$$11 + 3 = \underline{4} + 10 \quad (14 - 10 = 4 \rightarrow \text{both sides must be equal } 14) \\ \begin{array}{r} 14 \\ \underline{14} \\ 14 \end{array} = \begin{array}{r} 14 \\ \underline{14} \\ 14 \end{array}$$

- Draw:** Write  $5 + \underline{\quad} = 8 + 7$  on the board.
- Guide:** Work with the pupils to balance the statement by finding the missing number.

$$5 + \underline{10} = 8 + 7 \\ 15 = 15$$

## Classwork

- Pupils to work out the activities on page 57.

## Conclusion

- Have pupils order 60, 35, 10, 30, 65 from least to greatest using a number line.

## Homework

### Complete the number family

- $6 + 7 = \underline{\quad}$
- $9 + 3 = \underline{\quad}$
- $11 + 5 = \underline{\quad}$

### Order from least to greatest

- 40, 50, 5, 15, 25  $\underline{\quad}$
- 35, 25, 55, 60, 65  $\underline{\quad}$

### Balance to make equal

- $\underline{\quad} + 6 = 12 + 7$
- $15 + 5 = \underline{\quad} + 13$



## Complete the number family.

$$1 \quad 8 + 5 = \underline{\quad} \quad 5 + 8 = \underline{\quad}$$

$$13 - 5 = \underline{\quad} \quad 13 - 8 = \underline{\quad}$$

## Order from least to greatest.

$$2 \quad \boxed{15} \quad \boxed{30} \quad \boxed{10} \quad \boxed{25} \quad \boxed{40}$$

$$3 \quad \boxed{35} \quad \boxed{20} \quad \boxed{5} \quad \boxed{25} \quad \boxed{30}$$

## Balance to make equal.

$$4 \quad 12 + 5 = \underline{\quad} + 10$$

## Draw the next 2 shapes in the pattern.



Week 11, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Draw a number line by ones from 1 to 10 on the board but missing number 3.
- Have pupils count by ones and write the missing number.

## Development

## Activity 1 Operations: Number patterns

- **Draw:** Draw a number line by ones from 10 to 20 but missing number 14.
- **Guide:** Work with the pupils to count by ones and write the missing number.

## Activity 2 Whole numbers: Comparing numbers

- Draw another number line by fives from 10 to 50 as shown.



- **Demonstrate:** Use the number line to show pupils how to order the numbers 25, 10, 35, 50, 15 from least to greatest.

(10, 15, 25, 35, 50)

- Emphasize that a number to the right of another number on the number line is always greater than the one on the left.

- **Guide:** Work with the pupils to order 30, 50, 15, 40, 25 from least to greatest using the number line.

(15, 25, 30, 40, 50)

### Activity 3 Operations: Equivalence

- **Draw:** Write  $12 + \underline{\quad} = 10 + 7$ .
- **Demonstrate:** Show pupils how to balance the statement by working out  $10 + 7$  to get 17 and subtracting 12 from 17 to get the missing number.

$$\underbrace{12 + 5}_{17} = \underbrace{10 + 7}_{17} \quad (17 - 12 = 5 \rightarrow \text{both sides must equal 17})$$

- **Draw:** Write  $16 + 1 = 9 + \underline{\quad}$  on the board.
- **Guide:** Work with the pupils to balance the statement by finding the missing number.

## Classwork

- Pupils to work out the activities on page 58.

## Conclusion

- Draw 30 dots in three rows of ten each.
- Ask pupils to count by tens and write the number of dots.

## Homework

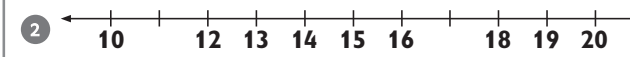
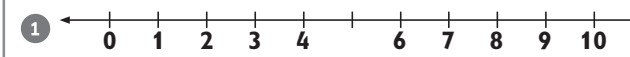
Order from least to greatest.

1. 5, 30, 25, 50, 40 \_\_\_\_\_
2. 10, 15, 60, 55, 20 \_\_\_\_\_

Balance to make equal

3.  $14 + 7 = \underline{\quad} + 10$       4.  $10 + 9 = \underline{\quad} + 6$   
5. Draw a number line by twos from 10 to 20.

**Write the missing numbers.**



Order from least to greatest.



\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

**Make groups of dots to show the numbers.**



**Balance to make equal.**

6  $11 + \underline{\quad} = 10 + 9$

7  $|0 + \underline{\quad} = |2 + 6$

## Introduction

- Have pupils identify objects in the classroom with the circle shape.

## Development

### Activity 1 Whole numbers: Number patterns

- Draw:** Draw a number line by ones from 10 to 20 but missing 13, 17.



- Guide:** Work with the pupils to count by ones and write the missing numbers.

### Activity 2 Whole numbers: Counting

- Draw:** Write the number 20 on the board.
- Guide:** Work with the pupils to draw dots in rows of 10 to represent the number.

### Activity 3 Whole numbers: Comparing numbers

- Draw:** Write the numbers 25 and 28 on the board.
- Demonstrate:** Show pupils how to use a number line to identify which number is less or greater than the other.
- Emphasize the use of greater than and less than.
- Draw:** Write the numbers 19 and 13 on the board.
- Guide:** Work with the pupils to use a number line to identify which number is less or greater than the other.

### Activity 3 Operation: Addition and subtraction

- Draw:** Write  $\begin{array}{r} 384 \\ +264 \\ \hline \end{array}$  and  $\begin{array}{r} 50 \\ -26 \\ \hline \end{array}$

- Demonstrate:** Show pupils how to work them out by regrouping.

- Draw:** Write  $\begin{array}{r} 35 \\ +27 \\ \hline \end{array}$  and  $\begin{array}{r} 534 \\ -12 \\ \hline \end{array}$

- Guide:** Work with the pupils to work out the problems.

## Classwork

- Pupils to work out the activities on page 59.

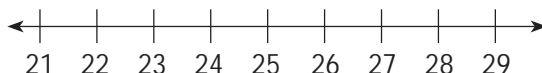
## Conclusion

- Write  $\begin{array}{r} 18 \\ +17 \\ \hline \end{array}$  and  $\begin{array}{r} 628 \\ -314 \\ \hline \end{array}$  and have pupils work them out.

## Homework

Add or subtract.

- $\begin{array}{r} 17 \\ +15 \\ \hline \end{array}$
- $\begin{array}{r} 46 \\ +18 \\ \hline \end{array}$
- $\begin{array}{r} 17 \\ +17 \\ \hline \end{array}$
- $\begin{array}{r} 273 \\ -142 \\ \hline \end{array}$
- $\begin{array}{r} 467 \\ -122 \\ \hline \end{array}$
- $\begin{array}{r} 592 \\ -270 \\ \hline \end{array}$

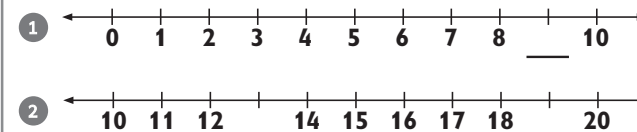


- Use the number line to order 27, 21, 24 from least to greatest.

**Note:** Remember to give the weekly test!



Write the missing numbers.



Make groups of dots to show the numbers.

3 30 4 40

Write 'is greater than' or 'is less than'.

5 6 \_\_\_\_\_ 5 6 7 \_\_\_\_\_ 9

Work out.

- $\begin{array}{r} 289 \\ +220 \\ \hline \end{array}$
- $\begin{array}{r} 527 \\ -120 \\ \hline \end{array}$
- $\begin{array}{r} 27 \\ +19 \\ \hline \end{array}$
- $\begin{array}{r} 46 \\ -19 \\ \hline \end{array}$

Week 11, Day 5:	Duration:	Roll:
_____	_____	_____
Remarks: _____		



## Introduction

- Have pupils identify objects in the classroom with the triangle shape.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the numbers 6 and 5 on the board.
- Demonstrate:** Show how to use a number line to identify which number is less or greater than the other.
- Emphasize the use of greater than and less than.
- Draw:** Write the numbers 7 and 8 on the board.
- Guide:** Work with pupils to use a number line to identify which number is less or greater than the other.

### Activity 2 Operation: Addition and subtraction

- Draw:** Write  $\begin{array}{r} 26 \\ +29 \\ \hline \end{array}$  and  $\begin{array}{r} 55 \\ -29 \\ \hline \end{array}$  on the board.
- Demonstrate:** Show how to work addition and subtraction by regrouping.

$$\begin{array}{r} 1 \phantom{0} \phantom{0} \phantom{0} \\ 26 \\ +29 \\ \hline 55 \end{array} \quad \begin{array}{r} 415 \\ \cancel{5} \phantom{0} \cancel{5} \\ -29 \\ \hline 26 \end{array}$$

- Emphasize that  $26 + 29 = 55$  and  $55 - 29 = 26$  involve the numbers 26, 29 and 55. Therefore they form a family of number 55.

- Draw:** Write  $\begin{array}{r} 28 \\ +15 \\ \hline \end{array}$  and  $\begin{array}{r} 43 \\ -15 \\ \hline \end{array}$

and guide pupils to work them out by regrouping and identify that the two form a family of 43.

- Demonstrate:** Show pupils how to match by drawing lines.

## Classwork

Pupils to work out the activities on page 60.

## Conclusion

- Ask pupils to work out  $\begin{array}{r} 36 \\ +18 \\ \hline \end{array}$  then write a subtraction question that matches with it.

## Homework

Write 'is greater than' or 'is less than'.

- 11 \_\_\_\_\_ 5
- 10 \_\_\_\_\_ 16
- 6 \_\_\_\_\_ 8
- 11 \_\_\_\_\_ 7

Work out and match

- $\begin{array}{r} 18 \\ +13 \\ \hline \end{array}$
- $\begin{array}{r} 31 \\ -13 \\ \hline \end{array}$

### Teacher Tip

From: Teacher Linda

It is important to teach pupils math vocabulary so as to enable them be familiar with the terms; greater than, less than. Ensure that pupils are mastering these vocabulary words even as you translate for the pupils.



Write 'is greater than' or 'is less than'.

- 8 \_\_\_\_\_ 4
- 6 \_\_\_\_\_ 7
- 9 \_\_\_\_\_ 10
- 8 \_\_\_\_\_ 6

Work out and match.

- $\begin{array}{r} 28 \\ +14 \\ \hline \end{array}$
- $\begin{array}{r} 44 \\ -16 \\ \hline \end{array}$
- $\begin{array}{r} 25 \\ +18 \\ \hline \end{array}$
- $\begin{array}{r} 42 \\ -28 \\ \hline \end{array}$
- $\begin{array}{r} 28 \\ +16 \\ \hline \end{array}$
- $\begin{array}{r} 43 \\ -25 \\ \hline \end{array}$

Week 12, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by threes from 3 to 18.

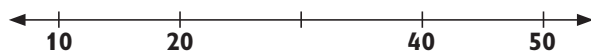
## Development

### Activity 1 Operations: Number patterns

- Draw:** Draw a number line by fives from 5 to 55 but missing 10 and 40.



- Guide:** Work with the pupils to count by fives and write the missing number.
- Draw:** Draw a number line by tens from 0 to 40 but missing 30.



- Guide:** Work with pupils to count by tens and write the missing number.

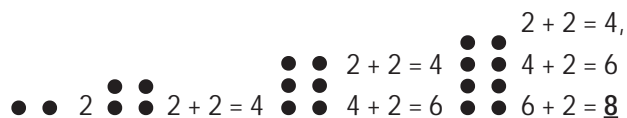
### Activity 2 Operations: Number families

- Draw:** Write the number sentence  $8 + 5 = \underline{\quad}$
- Guide:** Work with the pupils work out the addition and write 3 more facts from the same family:

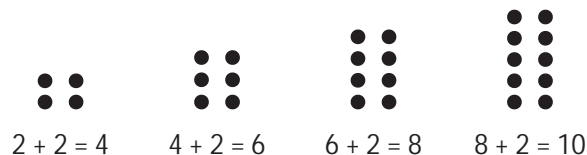
$$(8 + 5 = 13 \quad 5 + 8 = 13 \\ 13 - 8 = 5 \quad 13 - 5 = 8)$$

### Activity 3 Operations: Number patterns

- Demonstrate:** Draw the following dots and show how to count by twos to find the next number in the pattern.



- Guide:** Work with pupils to count the following dots by twos and find the next number in the pattern.



## Classwork

- Pupils to work out the activities on page 61.

## Conclusion

- Draw and ask pupils to write the next number in the pattern through counting by threes.

## Homework

### Complete the number family

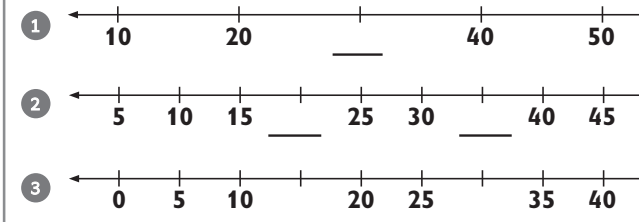
- $6 + 3 = 9$
- $8 + 4 = \underline{\quad}$
- $6 + 4 = \underline{\quad}$

### Write the next number

- 3, 6, 9,  $\underline{\quad}$
- 9, 12, 15,  $\underline{\quad}$



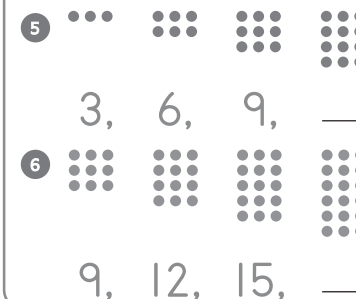
## Write the missing numbers.



## Complete the number family.

$$7 + 5 = \underline{\quad} \quad 5 + 7 = \underline{\quad} \\ 12 - 5 = \underline{\quad} \quad 12 - 7 = \underline{\quad}$$

## Write the next number.



Week 12, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to complete the following facts orally.

$$4 + 7 = \underline{\quad} \quad 13 - 3 = \underline{\quad} \quad 5 + 8 = \underline{\quad}$$

$$23 - 3 = \underline{\quad} \quad 16 + 4 = \underline{\quad}$$

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the following pairs of numbers on the board.

$$45 \quad 48 \quad 24 \quad 14$$

$$16 \quad 66 \quad 54 \quad 45$$

- Guide:** Work with pupils in identifying the greater number using the place value.

$$45 \text{ (48)} \quad 24 \text{ (14)}$$

$$16 \text{ (66)} \quad 54 \text{ (45)}$$

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write  $8 + 7$  \_\_\_\_\_ 13
- Demonstrate:** Show pupils how to compare  $8 + 7$  and 13 by working out  $8 + 7$  to get 15.

$$8 + 7 \text{ _____ } 13$$

15 is greater than 13

- Emphasize the use of greater than to compare 15 and 13.
- Draw:** Write  $9 - 3$  \_\_\_\_\_ 7.
- Guide:** Work with the pupils to compare them using less than.
- $9 - 3 = 6$ ; 6 is less than 7, therefore 9-3 is less than 7.

### Activity 3 Operations: Number patterns

- Draw:** the following dots.



- Guide:** Work with pupils to write the next number by counting.



## Classwork

- Pupils to work out the activities on page 62.

## Conclusion

- Use the hundreds chart to count by 4s from 4 to 24 with the pupils several times.

## Homework

### Circle the greater number

$$1. \quad 13 \quad 31 \quad 2. \quad 41 \quad 44$$

$$3. \quad 36 \quad 46$$

### Write 'is greater than' or 'is less than'.

$$4. \quad 6 + 5 \text{ _____ } 14 \quad 5. \quad 3 + 7 \text{ _____ } 9$$

$$6. \quad 4 + 4 \text{ _____ } 9$$

### Teacher Tip

From: Teacher Ogwel

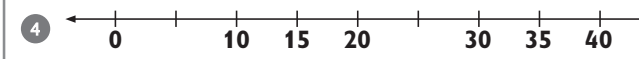
It is important to appreciate the spiral nature of the PRIMR Math program. Ensure that you are giving the necessary attention to the different activities in each lesson. Pupils will use this as a means of reviewing concepts already taught.



## Circle the greater number.

$$1. \quad 34 \quad 38 \quad 2. \quad 36 \quad 32$$

## Write the missing numbers.



## Write 'is greater than' or 'is less than'.

$$5. \quad 8 + 9 \text{ _____ } 16$$

## Write the next number.



$$4, \quad 8, \quad 12, \quad \underline{\quad}$$

## Write the next numbers.

$$7. \quad 8, 12, 16, 20, 24 \text{ _____, _____, _____}$$

Week 12, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by fours from 4 to 24 using their hundreds chart.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the following pairs of numbers on the board  
17 13      27 18  
14 16      43 34
- Guide:** Work with pupils in identifying the lesser number using the place value.

### Activity 2 Operations: Addition

- Draw:** Write  $16 + 17$  on the board.
  - Demonstrate:** Show pupils how to work out  $16 + 17$  by adding the tens and ones separately as shown:  
 $16 + 17 \rightarrow 16 = 1 \text{ ten and } 6 \text{ ones} = 10 \text{ and } 6$   
 $\rightarrow 17 = 1 \text{ ten and } 7 \text{ ones} = 10 \text{ and } 7$   
Tens  $\rightarrow 10 + 10 = 20$  }  $\underline{20} + \underline{13} = 33$   
Ones  $\rightarrow 6 + 7 = 13$  }      ↙      ↘  
   Tens      Ones
  - Guide:** Work with the pupils to work out  $12 + 19$  by adding the tens and ones separately as shown:  
 $12 + 19 \rightarrow 12 = 1 \text{ tens and } 2 \text{ ones} = 10 \text{ and } 2$   
 $\rightarrow 19 = 1 \text{ tens and } 9 \text{ ones} = 10 \text{ and } 9$   
Tens  $\rightarrow 10 + 10 = 20$  }  $\underline{20} + \underline{11} = 31$   
Ones  $\rightarrow 2 + 9 = 11$  }      ↙      ↘  
   Tens      Ones
- Therefore  $12 + 19 = 31$ .

## Classwork

- Pupils to work out the activities on page 63.

## Conclusion

- Have pupils balance the statement below in their books:

$$12 + 16 = 10 + \underline{\quad}$$

## Homework

### Circle the lesser number

- 15 51
- 14 24
- 28 18

### Balance the statements

- $16 + 13 = \underline{\quad} + 11$
- $11 + \underline{\quad} = 16 + 20$

### Add using tens and ones

- $14 + 13 = \underline{\quad}$
- $23 + 19 = \underline{\quad}$



## Circle the lesser number.

- 37      39
- 40      38

## Add.

- $17 + 15 = \underline{\quad}$
- $14 + 19 = \underline{\quad}$
- $18 + 13 = \underline{\quad}$
- $16 + 19 = \underline{\quad}$

## Write 'is greater than' or 'is less than'.

- $12 + 5$  \_\_\_\_\_  $18$
- $17 - 8$  \_\_\_\_\_  $8$

## Balance to make equal.

- $17 + 19 = 10 + \underline{\quad}$
- $14 + 15 = 11 + \underline{\quad}$

Week 12, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Write  $18 + 15 = \underline{\quad}$
- Have pupils work it out in their books. Revise and emphasize regrouping.

## Development

### Activity 1 Operations: Addition and subtraction

- Draw:** Write  $\begin{array}{r} 38 \\ +25 \\ \hline \end{array}$  and  $\begin{array}{r} 63 \\ -38 \\ \hline \end{array}$  on the board.
- Demonstrate:** Show pupils how to work them out by regrouping

$$\begin{array}{r} 1 \\ 38 \\ +25 \\ \hline 63 \end{array} \quad \begin{array}{r} 513 \\ \cancel{8} \cancel{3} \\ -38 \\ \hline 25 \end{array}$$

- Emphasize that  $38 + 25 = 63$  and  $63 - 38 = 25$  involve the numbers 38, 25 and 63. Therefore they form a family of number 63.
- Draw:** Write  $\begin{array}{r} 34 \\ +27 \\ \hline \end{array}$  and  $\begin{array}{r} 61 \\ -27 \\ \hline \end{array}$  work with pupils to solve them by regrouping.
- Emphasize that the two questions form a family of 61.
- Guide:** Work with pupils to work them out by regrouping and identify that the two form a family of 61.

### Activity 2 Operations: Equivalence

- Demonstrate:** Show pupils how to balance the statement as the one shown below:

$$\begin{array}{c} 12 + 7 = \underline{\quad} + 15 \\ \swarrow \quad \searrow \\ 19 \quad 19 \end{array} \quad \begin{array}{l} \bullet 12 + 7 = 19 \\ \bullet 4 + 15 = 19 \end{array}$$

Both sides must be equal 19

- Guide:** Work with the pupils to balance the following statement on the board:

$$18 + 10 = \underline{\quad} + 15 \quad (13)$$

## Classwork

- Pupils to complete the activities on page 64.

## Conclusion

- Write  $34 + 49 = \underline{\quad}$  on the board.
- Have pupils solve the problem on the board.

## Homework

### Work out and match

- |   |   |
|---|---|
| 1. $\begin{array}{r} 16 \\ +26 \\ \hline \end{array}$ | 4. $\begin{array}{r} 50 \\ -27 \\ \hline \end{array}$ |
| 2. $\begin{array}{r} 45 \\ -17 \\ \hline \end{array}$ | 5. $\begin{array}{r} 42 \\ -16 \\ \hline \end{array}$ |
| 3. $\begin{array}{r} 23 \\ +27 \\ \hline \end{array}$ | 6. $\begin{array}{r} 28 \\ +17 \\ \hline \end{array}$ |

**Note:** Remember to give the weekly test.

### Teacher Tip

From: Teacher Okullo

Ensure that you time the speed test and encourage pupils to work on the questions as fast as possible.



## Work out.

- 1  $17 + 18 = \underline{\quad}$       2  $21 + 19 = \underline{\quad}$

## Work out and match.

- |  |  |
|--|--|
| 3 $\begin{array}{r} 25 \\ +16 \\ \hline \end{array}$ | 4 $\begin{array}{r} 50 \\ -16 \\ \hline \end{array}$ |
| 5 $\begin{array}{r} 34 \\ +16 \\ \hline \end{array}$ | 6 $\begin{array}{r} 45 \\ -17 \\ \hline \end{array}$ |
| 7 $\begin{array}{r} 17 \\ +28 \\ \hline \end{array}$ | 8 $\begin{array}{r} 41 \\ -25 \\ \hline \end{array}$ |

## Balance to make equal.

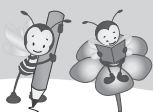
- 9  $21 + 9 = 13 + \underline{\quad}$
- 10  $11 + 19 = \underline{\quad} + 14$

Week 12, Day 5:

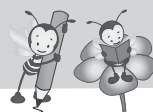
Duration:

Roll:

Remarks:



## Speed Test 3



## Check-Up Quiz, Weeks 9–12

Work out:

$17 + 2 = \underline{\quad}$

$16 - 0 = \underline{\quad}$

$15 + 1 = \underline{\quad}$

$17 - 3 = \underline{\quad}$

$16 + 0 = \underline{\quad}$

$15 - 5 = \underline{\quad}$

$14 + 2 = \underline{\quad}$

$18 - 1 = \underline{\quad}$

$2 + 13 = \underline{\quad}$

$15 - 4 = \underline{\quad}$

$12 + 4 = \underline{\quad}$

$13 - 0 = \underline{\quad}$

$10 + 5 = \underline{\quad}$

$16 - 4 = \underline{\quad}$

$8 + 11 = \underline{\quad}$

$18 - 15 = \underline{\quad}$

$6 + 12 = \underline{\quad}$

$15 - 10 = \underline{\quad}$

$18 + 1 = \underline{\quad}$

$14 - 11 = \underline{\quad}$

$2 + 12 = \underline{\quad}$

$17 - 10 = \underline{\quad}$

$12 + 5 = \underline{\quad}$

$19 - 17 = \underline{\quad}$

$14 + 0 = \underline{\quad}$

$10 + 7 = \underline{\quad}$

$17 - 14 = \underline{\quad}$

Write the next numbers.

1 6, 9, 12,         

Write 'is greater than' or 'is less than'

2 14          11 + 7

Complete the number family.

3  $7 + 5 = \underline{\quad}$                      

Draw the next 2 shapes. Circle the fifth (5th) shape.

4  $\square \triangle \square \triangle \square$           

Work out.

5 
$$\begin{array}{r} 27 \\ + 15 \\ \hline \end{array}$$

6 
$$\begin{array}{r} 42 \\ - 27 \\ \hline \end{array}$$

Subtract by breaking apart.

7  $12 - 7 =$   
     -      -      =



## Introduction

- Guide pupils to count backwards by fives from 100 to 5 without the hundreds chart.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count backwards by fives and twos and write the next numbers in the patterns below.

40, 35, 30, \_\_, \_\_, \_\_ (25, 20, 15)

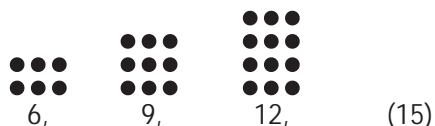
14, 12, 10, \_\_, \_\_, \_\_ (8, 6, 4)

### Activity 2 Operations: Number patterns

- Draw:** Draw the following dots.



- Guide:** Work with pupils to draw the next set of dots in the pattern and write all the numbers in the pattern.



### Activity 3 Operations: Addition

- Draw:** Write  $18 + 13 = \underline{\quad}$

- Demonstrate:** Show how to work out the addition  $18 + 13$  by writing it vertically and using regrouping.

$$\begin{array}{r} 1 \\ 18 \\ + 13 \\ \hline 31 \end{array}$$

- Draw:** Write  $24 + 17 = \underline{\quad}$ .
- Guide:** Work with pupils to work it out by writing it vertically and using regrouping:

$$\begin{array}{r} 1 \\ 24 \\ + 17 \\ \hline 41 \end{array}$$

### Activity 4

- Guide:** Work with the pupils to balance  $21 + 8 = \underline{\quad} + 20$  on the board. (9)

## Classwork

- Pupils to work out activities on page 67.

## Conclusion

- Have pupils count backwards by 3s from 18 to 3.

## Homework

### Write the next numbers

- 30, 25, 20, \_\_, \_\_, \_\_
- 30, 28, 26, \_\_, \_\_, \_\_

### Balance to make equal

- $17 + \underline{\quad} = 14 + 15$
- $10 + 25 = 14 + \underline{\quad}$
- $21 + 8 = \underline{\quad} + 11$
- $25 + \underline{\quad} = 12 + 17$
- Write  $19 + 13$  vertically and add.



## Write the next numbers.

1 100, 95, 90, \_\_, \_\_, \_\_, \_\_, \_\_

2 100, 98, 96, \_\_, \_\_, \_\_, \_\_, \_\_

3 90, 85, 80, \_\_, \_\_, \_\_, \_\_, \_\_

## Write the next number.

4 5 5, 10, 15, \_\_ 12, 16, 20, \_\_

## Work out.

6  $17 + 19 = \underline{\quad}$  7  $21 + 18 = \underline{\quad}$

## Balance to make equal.

8  $16 + \underline{\quad} = 10 + 18$   
9  $17 + 11 = 15 + \underline{\quad}$

Week 13, Day 1:	Duration:	Roll:
_____	_____	_____
Remarks: _____		
_____		

## Introduction

- Have pupils count backwards by fours from 24 to 4.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the numbers 35, 22, 37, 28.
- Demonstrate:** Show how to order from the least to the greatest using place value.
- Explain that to identify the least number, we first consider the value of the tens in each number. Then we consider the value of the ones. (22, 28, 35, 38)
- Guide:** Work with the pupils to order numbers 10, 45, 14, 40 from greatest to least using place value. (45, 40, 14, 10)

### Activity 2 Operations: Number patterns

- Draw:** the following dots.



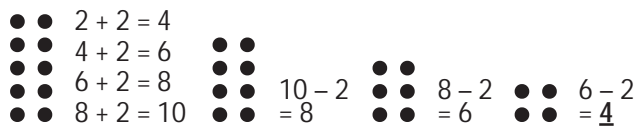
- Demonstrate:** Show how to count by twos backwards to find the next set of dots and write the numbers in the pattern.



- Draw:** Draw the following dots.



- Guide:** Work with pupils to identify the next number by counting backwards by twos.



## Classwork

- Pupils to work out the activities on page 68.

## Conclusion

- Let pupils work out the next numbers in the patterns below:

18, 15, 12, \_\_\_\_ (9)

24, 20, 16, \_\_\_\_ (12).

## Homework

### Order from least to greatest

- 35, 50, 77, 20 \_\_\_\_\_
- 45, 11, 17, 40 \_\_\_\_\_
- 25, 28, 23, 20 \_\_\_\_\_

### Order from greatest to least

- 45, 62, 99, 10 \_\_\_\_\_
- 87, 52, 83, 59 \_\_\_\_\_
- 66, 60, 63, 69 \_\_\_\_\_



## Order from least to greatest.

1 26 32 40 35 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

2 29 36 27 39 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## Order from greatest to least.

3 36 24 21 30 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## Write the next number.

4 18, 15, 12, \_\_\_\_ 5 24, 20, 16, \_\_\_\_

## Write the next numbers.

6 41, 37, 33, 29, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
7 44, 40, 36, 32, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Week 13, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils work out the next numbers in the patterns below:

8, 6, 4, \_\_\_\_ (2)

10, 8, 6, \_\_\_\_ (4)

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils count by twos and threes and write the missing numbers in the patterns below:

16, 14, 12, \_\_, 8 (10)

94, 96, 98, \_\_ (100)

5, 12, 9, \_\_ (6)

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write the following numbers; 27, 20, 24, 29.
- Guide:** Work with pupils to order them from least to greatest using place value. (20, 24, 27, 29)

### Activity 3 Operations: Equivalence

- Demonstrate:** Show how to balance the statement below:

$$\begin{array}{r} 14 + 15 = 12 + \underline{\quad} \\ \underbrace{\quad}_{29} \quad \underbrace{\quad}_{29} \end{array} \quad (17)$$

- Guide:** Work with pupils to balance  $23 + 5 = 21 + \underline{\quad}$  on the board. (7)

### Activity 4 Operations: Number patterns

- Draw:** Draw the following dots.



- Guide:** Work with pupils to identify the next number by counting backwards by threes.



## Classwork

- Pupils to work out the activities on page 69.

## Conclusion

- Work with pupils to count the two groups of dots below by fives and twos and circle the larger group.



## Homework

Write the missing number.

1. 12, 9, 6, \_\_\_\_

2. 30, 32, 34 \_\_\_\_

3. 70, 68, \_\_, 64

4. 20, 16, 12, \_\_\_\_

Balance to make equal

5.  $16 + \underline{\quad} = 19 + 11$

6.  $12 + \underline{\quad} = 30 + 10$



Write the missing number.

1 24, 26, 28, \_\_, 32

2 42, 40, 38, \_\_, 34

4 3, \_\_, 9, 12

5 60, 58, 56, \_\_, 52

Order from least to greatest.

6 35 31 37 30 7 28 40 35 23

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

Balance to make equal.

8  $18 + 12 = \underline{\quad} + 14$

9  $17 + 13 = 19 + \underline{\quad}$

Write the next number.

10 15, 12, 9, \_\_\_\_

11 20, 16, 12, \_\_\_\_

Week 13, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Write 'Hamisi has 12 papers. He gives his sister 5 papers. How many papers does he have left?'
- Use counters to guide the pupils to work it out.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Draw the dots below on the board.



- Guide:** Work with pupils to count by six and four to identify the group with the greater number.



$$6 + 6 = 12 + 6 = 18 \quad 4 + 4 = 8 + 4 = 12 + 4 = 16$$

### Activity 2 Operations: Number patterns

- Guide:** Work with pupils to find the missing numbers in the patterns below by counting by twos or threes.

$$18, 21, 24, \_, 30 \quad (27)$$

$$44, 42, 40, \_, 36 \quad (38)$$

### Activity 3 Whole numbers: Comparing numbers

- Draw:** Write  $7 + 5$  \_\_\_\_\_  $6 + 3$  on the board.
- Demonstrate:** Show how to work out and indicate the relationship as shown below:

$$\begin{array}{r} 7 + 5 \\ \hline 12 \end{array} \quad \text{is greater than} \quad \begin{array}{r} 6 + 3 \\ \hline 9 \end{array}$$

- Emphasize that you are comparing 12 and 9  
→ 12 is greater than 9

- Draw:** Write  $6 + 4$  \_\_\_\_\_  $2 + 8$ .
- Guide:** Work with the pupils to indicate the relationship using less than, greater than and equal to. (10 is equal to 10)

## Classwork

- Pupils to work out the activities on page 70.

## Conclusion

- Write 24, 22, \_\_\_\_\_, 18. Ask pupils to complete the number pattern.

## Homework

### Write the missing number

$$1. \quad 12, 15, 18, \_ \quad 2. \quad 39, 36, 33, \_$$

$$3. \quad 54, 52, 50, \_ \quad 4. \quad 64, 66, 68, \_$$

### Write greater than, less than or equal to

$$5. \quad 5 + 5 \_ 3 + 7 \quad 6. \quad 10 + 6 \_ 8 + 7$$

$$7. \quad 4 + 3 \_ 5 + 4$$

8. There are 18 boys in class two. There are 14 girls in class two. How many pupils are there in class 1?



## Write the number of dots and circle the greater number.



## Write the missing number.

$$3. \quad 30, 33, 36, \_, 42$$

$$4. \quad 60, 58, 56, \_, 52$$

$$5. \quad 24, 26, 28, \_, 32$$

## Write 'is greater than', 'is less than' or 'is equal to'.

$$6. \quad 9 + 5 \_ 18 + 3$$

$$7. \quad 10 + 4 \_ 7 + 7$$

## Work out.

8. There are 27 bananas in a shop. There are 16 mangoes in the same shop. How many fruits are in the shop? \_\_\_\_\_ fruits
9. There are 44 people in a party. 25 people leave the party. How many people are left? \_\_\_\_\_ people

Week 13, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Let pupils draw the next shapes in the patterns below:

$\triangle \triangle \square \triangle \triangle \square$  \_\_\_\_\_ ( $\triangle \triangle \square$ )

$\bigcirc \bigcirc \triangle \triangle \bigcirc \bigcirc \triangle \triangle$  \_\_\_\_\_ ( $\bigcirc \bigcirc \triangle$ )

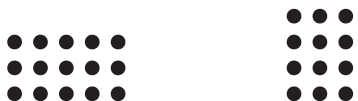
## Development

### Activity 1 Operations: Number patterns

- Draw:** Draw the dots below on the board.



- Guide:** Work with pupils on how to count by fives and threes to identify the group with the greater number.



$$5 + 5 = 10 + 5 = \underline{15}$$

$$3 + 3 = 6 + 3 = 9 + 3 = \underline{12}$$

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write  $9 - 3$  \_\_\_\_\_  $10 - 1$  on the board.
- Demonstrate:** Show how to work out and indicate the relationship as shown below:

$$\begin{array}{r} 9 - 3 \\ \underline{6} \end{array} \text{ is less than } \begin{array}{r} 10 - 1 \\ \underline{9} \end{array}$$

- Emphasize that you are comparing 6 and 9  
→ 6 is less than 9
- Draw:** Write  $8 - 2$  \_\_\_\_\_  $7 - 3$ .
- Guide:** Work with the pupils to indicate the relationship using less than, greater than and equal to.

(6 is greater than 4)

### Activity 3 Operations: Subtraction

- Draw:** Write the word problem. 'Orengo has 13 sweets. He gave Njeru 4 sweets. How many sweets was he left with?'
- Guide:** Work with pupils to work this out by writing a number sentence. ( $13 - 4 = \underline{9}$  sweets)

## Classwork

- Pupils to work out the activities on page 71.

## Conclusion

- Write  $9 - 4$  \_\_\_\_\_  $10 - 3$  and ask pupils to indicate the relationship using less than, greater than and equal to.

## Homework

Write 'is greater than' or 'is less than'

1.  $4 - 3$  \_\_\_\_\_  $5 - 1$       2.  $8 - 4$  \_\_\_\_\_  $6 - 3$

3.  $9 - 2$  \_\_\_\_\_  $10 - 1$       4.  $7 - 5$  \_\_\_\_\_  $4 - 3$

**Note:** Remember to give the weekly test.



Write the number of dots and circle the greater number.



Draw the next shapes in the pattern.



Write 'is greater than', 'is less than' or 'is equal to'.

5  $10 - 5$  \_\_\_\_\_  $9 - 6$

6  $8 - 1$  \_\_\_\_\_  $10 - 3$

Work out.

- 7 There are 44 pupils in class. 18 of them are girls. How many boys are there?

\_\_\_\_\_ boys

- 8 Makena sees 29 red motorcycles and 12 blue motorcycles on the road. How many motorcycles does she see in all?

\_\_\_\_\_ motorcycles

Week 13, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Using the hundred chart, ask pupils to count by threes from 3 to 30.

## Development

### Activity 1 Geometry: Patterns

- Draw:** Draw the following pattern on the board.

△○△○△○△ \_\_\_\_\_

□△△□△△□△ \_\_\_\_\_

- Guide:** Work with pupils to draw the next 3 shapes in the patterns:

△○△○△○△ \_\_\_\_\_ (○△○)

□△△□△△□△ \_\_\_\_\_ (△□△)

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write  $6 + 3$  \_\_\_\_\_  $5 + 5$  on the board.
- Demonstrate:** Show how to work it out as shown below.

$$\begin{array}{r} 6 + 3 \\ \text{---} \\ 9 \end{array} \quad \text{is less than} \quad \begin{array}{r} 5 + 5 \\ \text{---} \\ 10 \end{array}$$

- Emphasize that you are comparing 9 and 10. (9 is less than 10.)
- Guide:** Work with pupils to use greater than or less than to work out and compare which is greater  $5 + 2$  \_\_\_\_  $3 + 3$ . (7 is greater than 6)

### Activity 3 Whole numbers: Comparing numbers

- Draw:** Draw a number line by fives from 10 to 30.
- Guide:** Work with pupils to order the numbers 25, 10, 20, 15 from greatest to least using the number line.

- Remind pupils that a number on the right of the other on a number line is always greater than the one on the left.

## Classwork

- Pupils to work out the activities on page 72.

## Conclusion

- Write  $6 + 4$  \_\_\_\_\_  $7 + 2$ . Ask pupils to work out the word problem.

## Homework

Draw the next shapes in the shape pattern:

- △△○△△○ \_\_\_\_\_
- /□□/□ \_\_\_\_\_
- △○△○△○ \_\_\_\_\_
- △□○○△□ \_\_\_\_\_

Order from greatest to least.

- 25, 35, 20, 30
- 45, 90, 20, 55
- 10, 30, 55, 15
- 40, 20, 35, 30



Draw the next shapes in the pattern.

1. △□□△□□△□□ \_\_\_\_\_

2. □●△□●△□●△ \_\_\_\_\_

Write 'is greater than', 'is less than' or 'is equal to'.

3.  $7 + 5$  \_\_\_\_\_  $6 + 4$

4.  $3 + 8$  \_\_\_\_\_  $4 + 9$

Order from least to greatest.



5. 35, 31, 37, 30, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6. 28, 32, 43, 36, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Week 14, Day 1:

Duration:

Roll:

Remarks: \_\_\_\_\_



## Introduction

- Using the hundreds chart ask the pupils to count by fours from 4 to 40.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count by threes or fours and write the next numbers in the pattern below:

18, 15, 12, \_\_, \_\_, \_\_ (9, 6, 3)  
8, 12, 16, \_\_, \_\_, \_\_ (20, 24, 28)

### Activity 2 Operations: Subtraction

- Demonstrate:** Show how to work out the subtraction below on the board using regrouping

$$\begin{array}{r} 1 \ 16 \\ \cancel{2} \ \cancel{6} \\ - 1 \ 7 \\ \hline 9 \end{array} \quad \begin{array}{l} \text{(Regroup 26 as 1 tens and 16 ones.} \\ \text{Subtract 7 from 16 to get 9. Subtract} \\ \text{1 tens from 1 tens to get 0 tens).} \end{array}$$

- Guide:** Work with the pupils to work out  $35$  by  $18$  by regrouping 35 as 2 tens and 15 ones.

### Activity 3 Operations: Basic facts

- Guide:** Work with pupils to work out the following facts orally.

$$\begin{array}{ll} 7 + 5 = \_\_\_ & 11 - 8 = \_\_\_ \\ 12 - 5 = \_\_\_ & 7 + 7 = \_\_\_ \end{array}$$

## Classwork

- Pupils to work the activities on page 73.

## Conclusion

- Ask pupils to work out the next 3 numbers in the patterns below:

20, 24, 28, \_\_, \_\_, \_\_ (32, 36, 40)

27, 24, 21, \_\_, \_\_, \_\_ (18, 15, 12)

## Homework

### Add or subtract

- $7 + 9 = \_\_\_$
- $3 + 10 = \_\_\_$
- $8 + 6 = \_\_\_$
- $15 - 6 = \_\_\_$
- $12 - 5 = \_\_\_$
- $16 - 6 = \_\_\_$

### Subtract

- $$\begin{array}{r} 30 \\ - 25 \\ \hline \end{array}$$
- $$\begin{array}{r} 45 \\ - 18 \\ \hline \end{array}$$
- $$\begin{array}{r} 22 \\ - 7 \\ \hline \end{array}$$

### Teacher Tip

From: Teacher Njagi

New topics should be introduced using concrete materials so as to provide pupils with an opportunity not only to visualize, but to handle the materials as well. Ensure that you use easily visible and readily available materials.



## Write the next numbers.

1 30, 27, 24, \_\_, \_\_, \_\_

2 0, 4, 8, 12, \_\_, \_\_, \_\_

## Work out.

3 
$$\begin{array}{r} 32 \\ - 15 \\ \hline \end{array}$$

4 
$$\begin{array}{r} 36 \\ - 25 \\ \hline \end{array}$$

5 
$$\begin{array}{r} 34 \\ - 18 \\ \hline \end{array}$$

6 
$$\begin{array}{r} 33 \\ - 25 \\ \hline \end{array}$$

## Work out.

7  $14 - 7 = \_\_\_$

8  $9 + 6 = \_\_\_$

9  $11 - 5 = \_\_\_$

10  $8 + 7 = \_\_\_$

Week 14, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to work out the next numbers in the patterns below.

18, 21, 24, \_\_, \_\_ (27, 30)

4, 8, 12, \_\_, \_\_ (16, 20)

## Development

### Activity 1 Operations: Number patterns

- Guide:** Ask pupils to count backwards by fours or 10s and write the next or missing numbers in the patterns below:

100, 90, \_\_, 70 (80)

28, 24, 20, \_\_, \_\_, \_\_ (16, 12, 8)

### Activity 2 Operations: Equivalence

- Demonstrate:** Show how to balance the statement below on the board.

$$\begin{array}{c} 6 + 4 \\ \hline 10 \end{array} = \begin{array}{c} \underline{\quad} + 5 \\ \hline 10 \end{array} \quad (\text{Both sides must equal } 10)$$

- Guide:** Ask the pupils to balance  $11 + 5 = \underline{\quad} + 7$  on the board (9)

### Activity 3 Whole numbers: Comparing numbers

- Draw:** Write  $16 - 5 \underline{\quad} 11$  on the board.
- Demonstrate:** Show how to work it out as shown below.

$$\begin{array}{c} 14 - 5 \\ \hline 9 \end{array} \text{ is less than } 11$$

- Emphasize that you are comparing 9 and 11; 9 is less than 11.
- Guide:** Work with pupils to repeat the activity with  $12 \underline{\quad} 6 + 5$ . (12 is greater than 11).

## Classwork

- Pupils to work out the activities on page 74.

## Conclusion

- Use the hundreds chart to count by tens from 4 to 94.
- Ask pupils to repeat the counting.

## Homework

### Write the next numbers

1. 18, 15, 12, \_\_, \_\_, \_\_

2. 12, 15, 18, \_\_, \_\_, \_\_

3. 24, 20, 16, \_\_, \_\_, \_\_

4. 16, 20, 24, \_\_, \_\_, \_\_

### Balance to make equal

5.  $7 + 6 = \underline{\quad} + 3$

6.  $10 + 8 = \underline{\quad} + 4$

### Write 'is greater than' or 'is less than'.

7.  $6 + 3 \underline{\quad} 11$

8.  $13 \underline{\quad} 9 - 2$



## Write the next numbers.

1 12, 15, 18, 21, \_\_, \_\_, \_\_

2 40, 36, 32, 28, \_\_, \_\_, \_\_

## Write the missing number.

3 30, 40, \_\_, 60

## Work out.

4  $8 + 5 = \underline{\quad}$

5  $14 - 6 = \underline{\quad}$

## Balance to make equal.

6  $13 + 19 = \underline{\quad} + 17$

## Write 'is greater than' or 'is less than'.

7  $11 \underline{\quad} 17 - 7$

8  $19 - 6 \underline{\quad} 14 - 7$

Week 14, Day 3:

Duration:

Roll:

Remarks:

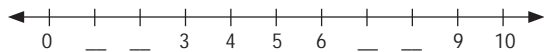
## Introduction

- Using the hundreds chart guide the pupils to count back by tens from 94 to 4.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Show how to draw a number line by 1s from 0 to 10 but missing 1, 2, 7, 8.



- Work with pupils to write the missing numbers on the number line.

### Activity 2 Operations: Number patterns

- Guide:** Ask pupils to count by fives or tens and write the missing numbers in the patterns below:

30, 25, 20, \_\_, 10 (15)

50, 60, 70, \_\_, 90 (80)

### Activity 3 Operations: Equivalence

- Demonstrate:** Show how to balance the statement  $3 + 7 = 1 + \underline{\hspace{1cm}}$  (9)
- Guide:** Ask pupils to balance the statement  $6 + \underline{\hspace{1cm}} = 10 + 2$  (6)

### Activity 4 Operations: Number patterns

- Demonstrate:** Show how to obtain the next numbers in pattern 2, 12, 22, 32, \_\_, \_\_, \_\_ through counting by tens.  
(42, 52, 62)
- Guide:** Work with the pupils to obtain the next numbers in the pattern 94, 84, 74, 64, \_\_, \_\_, \_\_ through counting backwards by tens.  
(54, 44, 34)

## Classwork

- Pupils to work out the activities on page 75.

## Conclusion

- Have pupils count back by tens and write the next numbers in the following patterns:

95, 85, 75, \_\_, \_\_, \_\_

98, 88, 78, \_\_, \_\_, \_\_

## Homework

### Balance to make equal

- $1 + \underline{\hspace{1cm}} = 8 + 6$
- $11 + 5 = 8 + \underline{\hspace{1cm}}$
- $\underline{\hspace{1cm}} + 7 = 12 + 3$
- $10 + \underline{\hspace{1cm}} = 9 + 9$

### Write the next numbers

- 5, 15, 25, \_\_, \_\_, \_\_
- 99, 89, 79, \_\_, \_\_, \_\_

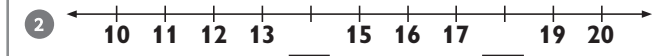
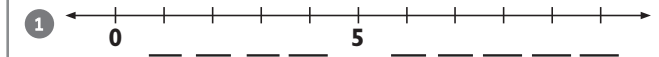
### Teacher Tip

From: Teacher Linda

Regrouping puts emphasis on place value so that pupils are able to understand why they 'carry' or 'borrow' numbers. It will therefore be clear to them that 13 is 1 tens and 3 ones  
**OR** 50 is 4 tens and 10 ones.



## Write the missing numbers.



## Write the missing number.

3 45, 50, 55, \_\_, 65

4 70, 60, 50, \_\_, 30

5 70, 65, 60, \_\_, 50

## Balance to make equal.

6  $6 + 7 = 9 + \underline{\hspace{1cm}}$

7  $8 + \underline{\hspace{1cm}} = 6 + 5$

## Write the next numbers.

8 4, 14, 24, 34, \_\_, \_\_, \_\_

9 96, 86, 76, 66, \_\_, \_\_, \_\_

Week 14, Day 4:

Duration:

Roll:

Remarks:

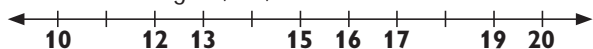
## Introduction

- Write 4 numbers from 31 to 65 and ask pupils to regroup them e.g.  $32 = 2 \text{ tens } 12 \text{ ones}$ .

## Development

### Activity 1 Operations: Number patterns

- Draw:** Draw a number line by ones from 10 to 20 but missing 11, 14, 18.



- Guide:** Ask pupils to write the missing numbers

### Activity 2 Operations: Number family

- Demonstrate:** Have 15 sticks and use them to explain the number family below.



$$10 + 5 = 15$$



$$5 + 10 = 15$$



$$15 - 5 = 10$$



$$15 - 10 = 5$$

- Point out that you have made 4 facts with the numbers 5, 10, 15.

$$5 + 10 = 15 \quad 10 + 5 = 15$$

$$15 - 5 = 10 \quad 15 - 10 = 5$$

- Draw:** Write another number family on the board:

$$8 + 4 = \underline{\quad}$$

- Guide:** Work out the addition with pupils then guide them to write 3 more facts with the same numbers.

$$8 + 4 = 12 \quad 4 + 8 = 12$$

$$12 - 8 = 4 \quad 12 - 4 = 8$$

### Activity 3 Operations: Subtraction

- Draw:** Write:  $63 - 27 = \underline{\quad}$
- Guide:** Ask pupils to work out the subtraction  $63 - 27$  by regrouping 63 as 5 tens 13 ones.

## Classwork

- Pupils to work out the activities on page 76.

## Conclusion

- Have pupils work out the subtraction  $40 - 16$  by regrouping 40 as 3 tens 10 ones.

## Homework

### Complete the numbers families

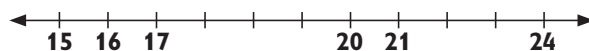
1.  $11 + 5 = 16$       2.  $12 + 3 = \underline{\quad}$

3.  $15 + 5 = \underline{\quad}$

### Add or subtract

4. 
$$\begin{array}{r} 25 \\ + 18 \\ \hline \end{array}$$
      5. 
$$\begin{array}{r} 43 \\ - 17 \\ \hline \end{array}$$
      6. 
$$\begin{array}{r} 33 \\ + 27 \\ \hline \end{array}$$

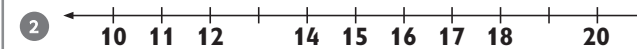
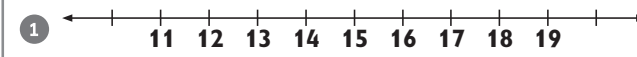
### Write the missing numbers:



**Note:** Remember to give the weekly test.



## Write the missing numbers.



## Complete the number family.

3.  $9 + 10 = \underline{\quad}$        $10 + 9 = \underline{\quad}$

$19 - 10 = \underline{\quad}$        $19 - 9 = \underline{\quad}$

4.  $6 + 8 = \underline{\quad}$        $8 + 6 = \underline{\quad}$

$14 - 6 = \underline{\quad}$        $14 - 8 = \underline{\quad}$

## Work out.

5. 
$$\begin{array}{r} 25 \\ + 26 \\ \hline \end{array}$$
      6. 
$$\begin{array}{r} 52 \\ - 17 \\ \hline \end{array}$$
      7. 
$$\begin{array}{r} 390 \\ + 180 \\ \hline \end{array}$$

Week 14, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Ask the pupil to work out the following facts orally

$7 + 7 = \underline{\quad}$        $16 - 8 = \underline{\quad}$        $9 + 9 = \underline{\quad}$   
 $12 - 6 = \underline{\quad}$        $5 + 9 = \underline{\quad}$

## Development

### Activity 1 Whole numbers: Comparing numbers

- **Draw:** Draw the following groups of dots.



- **Guide:** Work with pupils to count them by fives and sevens then circle the greatest number.



## Activity 2 Operations: Basic facts

- **Draw:** Write the number sentence  $6 + 5 = 11$  on the board.
- **Guide:** Ask pupils to write 3 more facts using the same numbers

$$(5 + 6 = 11 \quad 11 - 5 = 6 \quad 11 - 6 = 5)$$

- Use the statements  $5 + 6 = 11$  and  $11 - 6 = 5$  to explain the relationship between addition and subtraction.

### Activity 3 Operations: Addition

- **Demonstrate:** Show how to work out  $26 + 37$  by regrouping

$$\begin{array}{r} 1 \\ 3 \ 5 \\ + 1 \ 7 \\ \hline 5 \ 2 \end{array}$$

(5 + 7 = 12. Regroup 12 ones as 1 tens and 2 ones. Write 2 in the ones column and add the 1 tens to the tens column to get 5)

- **Guide:** Work with pupils to write out a matching subtraction problem to the addition.

## Classwork

- Pupils to work out the activities on page 77.

## Conclusion

- Write  $45 + 29 = \underline{\quad}$  on the board.
- Work with pupils to solve the problem on the board.

## Homework

### Complete the number families

1.  $25 + 7 = \underline{\quad}$

---

---

---

2.  $10 + 9 = \underline{\quad}$

---



---

3.  $16 + 4 = \underline{\quad}$

---



---

**Add and write a matching subtraction**

4. 
$$\begin{array}{r} 28 \\ + 15 \\ \hline \end{array}$$
5. 
$$\begin{array}{r} 44 \\ + 26 \\ \hline \end{array}$$

**Write the number of dots. Then circle the greater number.**



\_\_\_\_\_

~~~~~

**Complete the number family.**

3  $8 + 7 = \underline{\quad}$        $7 + 8 = \underline{\quad}$   
 $15 - 7 = \underline{\quad}$        $15 - 8 = \underline{\quad}$

**Work out and match.**

4

$$\begin{array}{r} 28 \\ +26 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ +15 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ -15 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ -26 \\ \hline \end{array}$$

## Introduction


- Ask pupils to count several times by fours from 4 to 40.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write the following patterns:  
84, 87, 90, \_\_, \_\_, \_\_  
52, 56, 60, \_\_, \_\_, \_\_
- Guide:** Using the hundreds chart ask pupils to count by 3s or 4s and write the next numbers in the patterns.  
84, 87, 90, 93, 96, 99,  
52, 56, 60, 64, 68, 72

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw the following groups of dots.  

- Guide:** Ask pupils to count them then circle the greater number:



### Activity 3 Operations: Subtraction

- Draw:** Write  $\begin{array}{r} 53 \\ -27 \end{array}$  on the board.
- Demonstrate:** Work out the subtraction by regrouping:

- we can't take away 7 from 0.

$$\begin{array}{r} 410 \\ \cancel{5} \cancel{0} \text{ (Regroup 50 as 4 tens and 10 ones.)} \\ -27 \\ \hline 23 \end{array}$$

Subtract 7 from 10 to get 3. Subtract 2 tens from 4 tens to get 2 tens).

- Guide:** Work with pupils to write out a matching addition problem to the subtraction.

## Classwork

- Pupils to work out the activities on page 78.

## Conclusion

- Ask pupils to order the following numbers from greatest to least.  
81, 75, 72, 87 (87, 81, 75, 72)

## Homework

Write the next numbers:

- 80, 76, 72, \_\_, \_\_, \_\_
- 40, 44, 48, \_\_, \_\_, \_\_
- 81, 78, 75, \_\_, \_\_, \_\_
- 81, 84, 87, \_\_, \_\_, \_\_

Subtract and write matching addition

- $\begin{array}{r} 53 \\ -27 \\ \hline \end{array}$
- $\begin{array}{r} 62 \\ -18 \\ \hline \end{array}$



Write the next numbers.

1 72, 75, 78, \_\_, \_\_, \_\_

2 60, 64, 68, \_\_, \_\_, \_\_

Write the number of dots. Then circle the greater number.



Work out and match.

|                                                      |                                                    |                                                    |
|------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| 5 $\begin{array}{r} 18 \\ +21 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ -25 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ +22 \\ \hline \end{array}$ |
| _____                                                | _____                                              | _____                                              |
| $\begin{array}{r} 49 \\ -22 \\ \hline \end{array}$   | $\begin{array}{r} 23 \\ +25 \\ \hline \end{array}$ | $\begin{array}{r} 39 \\ -21 \\ \hline \end{array}$ |
| _____                                                | _____                                              | _____                                              |

Week 15, Day 2:

Duration:

Roll:

Remarks:



## Introduction

- Ask pupils to use place value to order the following numbers from greatest to least:  
37, 46, 42, 33 (46, 42, 37, 33)

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write the following on the board.  
45, 48, 51, \_\_, \_\_, \_\_  
40, 44, 48, \_\_, \_\_, \_\_
- Guide:** Work with pupils to count by threes or fours using their hundreds chart and write the next numbers in the patterns:  
45, 48, 51, 54, 57, 60  
40, 44, 48, 52, 56, 60

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Write the following on the board.  
65, 68, 43, 40
- Guide:** Ask pupils to order the numbers from least to greatest using place value. Emphasise on starting with the tens place then proceeding to the ones.  
(40, 43, 65, 68)

### Activity 3 Operations: Equivalence

- Draw:** Write  $11 + \underline{\quad} = 12 + 5$  on the board.
- Demonstrate:** Show how to balance the statement  $11 + \underline{\quad} = 12 + 5$ .  
$$\begin{array}{r} 11 + \underline{\quad} = 12 + 5 \\ \underbrace{\quad}_{17} \quad \underbrace{\quad}_{17} \end{array} \quad \begin{array}{l} \text{(Both sides must equal)} \\ 17 - 11 = \underline{6} \end{array}$$
- Guide:** Work with pupils to balance  $15 + 5 = \underline{\quad} + 1$  on the board (19)

## Classwork

- Pupils to work out the activities on page 79.

## Conclusion

- Draw a number line by four from 60 to 100 but missing 64, 72, 96.
- Ask pupils to work out the missing numbers.

## Homework

### Write the next numbers

- 48, 52, 56, \_\_, \_\_, \_\_
- 32, 36, 40, \_\_, \_\_, \_\_
- 30, 33, 36, \_\_, \_\_, \_\_
- 69, 72, 75, \_\_, \_\_, \_\_

### Balance to make equal

- $18 + 2 = 10 + \underline{\quad}$
- $12 + 10 = 20 + \underline{\quad}$



## Write the next numbers.

- 72, 76, 80, \_\_, \_\_, \_\_
- 84, 87, 90, \_\_, \_\_, \_\_

## Order from least to greatest.

- |    |    |    |    |
|----|----|----|----|
| 41 | 47 | 50 | 44 |
|----|----|----|----|

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## Balance to make equal.

- $4 + 7 = \underline{\quad} + 6$
- $3 + \underline{\quad} = 6 + 4$
- $\underline{\quad} + 5 = 7 + 6$
- $9 + 5 = 7 + \underline{\quad}$

Week 15, Day 3:

Duration:

Roll:

Remarks: \_\_\_\_\_

## Introduction

- Write three pairs of numbers (42, 38) (17, 27) (84, 48) and ask pupils to identify the greater number in each pair.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Demonstrate:** Using the hundreds chart, show how to identify the numbers that come before and after 44.  
(43 and 45)
- Guide:** Using the hundreds chart, ask pupils to name the numbers that come before and after 38, 67 and 50.  
(37 and 39, 66 and 68, 49 and 51)

### Activity 2 Operations: Number patterns

- Draw:** Draw a number line by hundreds from 0 to 900 but missing 300, 700, 800.
- Guide:** Work with pupils to fill the missing numbers on the numberline.

### Activity 3 Whole numbers: Comparing numbers

- Draw:** Write 14, 41, 12, 21
- Guide:** Ask pupils to order the numbers from least to greatest using place value. Emphasise on starting with the tens place then go to the ones.  
(12, 14, 21, 41)

### Activity 4 Operations: Equivalence

- Draw:** Write  $7 + \underline{\quad} = 14 + 6$  on the board.
- Guide:** Work with pupils to balance the statement.  
 $7 + \underline{13} = 14 + 6$

## Classwork

- Pupils to work out the activities on page 80.

## Conclusion

- Write the following numbers on the board 16, 35, 20.
- Ask pupils to use the hundreds chart to identify the number that come before and after.

## Homework

Write the numbers that come before and after.

- $\underline{\quad}46\underline{\quad}$
- $\underline{\quad}30\underline{\quad}$
- $\underline{\quad}99\underline{\quad}$
- $\underline{\quad}41\underline{\quad}$
- $\underline{\quad}25\underline{\quad}$
- $\underline{\quad}52\underline{\quad}$
- $\underline{\quad}66\underline{\quad}$
- $\underline{\quad}9\underline{\quad}$

Balance to make equal

- $\underline{\quad} + 18 = 20 + 3$
- $17 + 13 = \underline{\quad} + 14$

### Teacher Tip

From: Teacher Okullo

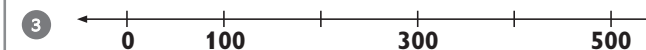
Ensure that you time the speed test and encourage pupils to work on the questions as fast as possible.



Write the numbers that come before and after.

- $\underline{\quad}, 72, \underline{\quad}$
- $\underline{\quad}, 87, \underline{\quad}$

Write the missing numbers.



Order from least to greatest.

- $\boxed{49} \boxed{46} \boxed{43} \boxed{37}, \underline{\quad}, \underline{\quad}, \underline{\quad}, \underline{\quad}$

- $\boxed{17} \boxed{25} \boxed{7} \boxed{13}, \underline{\quad}, \underline{\quad}, \underline{\quad}, \underline{\quad}$

Balance to make equal.

6  $2 + 18 = 11 + \underline{\quad}$

7  $14 + 7 = \underline{\quad} + 10$

|                 |           |       |
|-----------------|-----------|-------|
| Week 15, Day 4: | Duration: | Roll: |
| <hr/>           | <hr/>     | <hr/> |
| Remarks: <hr/>  |           |       |

## Introduction

- Write any 3 numbers between 25 and 95 on the board.
- Ask pupils to name the numbers that came before and after each one of them.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the following groups of numbers on the board.

14 41 36 26 54 50 89 98

- Guide:** Work with pupils to circle the greater number.

14 (41) (36) 26 (54) 50 89 (98)

### Activity 2 Operations: Number patterns

- Draw:** Write 6, 12, 18, 24, \_\_, \_\_, \_\_ on the board.
- Demonstrate:** Show how to count by 6s using the hundreds chart and write the next 3 numbers in the pattern below:

6, 12, 18, 24, 30, 36, 42

- Draw:** Write 7, 14, 21, 28, \_\_, \_\_, \_\_ on the board.
- Demonstrate:** Show how to count by sevens using the hundreds chart and write the next number in the pattern below:

7, 14, 21, 28, 35, 42, 49

- Draw:** Write on the board.

8, 16, 24, 32, \_\_, \_\_, \_\_

- Guide:** Work with pupils to count by eights using their hundreds chart and write the next numbers in the pattern below.

8, 16, 24, 32, 40, 48, 56.

- Draw:** Draw a number line by fives from 20 to 70 but missing 25, 35, 60.

- Guide:** Work with the pupils fill the missing numbers.

## Classwork

- Pupils to work out the activities on page 81.

## Conclusion

- Ask pupils to work out the missing numbers in the pattern:

5, 10, \_\_, \_\_, 25, 30, 35, \_\_, 45.

## Homework

### Circle the greater number

- 27 87
- 14 4
- 61 16
- 28 58

### Count and write the next numbers

- 6, 12, 18, \_\_, \_\_, \_\_
- 7, 14, 21, \_\_, \_\_, \_\_

### Count by eights and write the next numbers

- 48, 40, 32, \_\_, \_\_, \_\_

**Note:** Remember to give the weekly test!



Write the numbers that come before and after.

1 \_\_, 90, \_\_ 2 \_\_, 99, \_\_

Circle the greater number.

3 44 47 4 50 43

Write the next numbers.

5 18, 24, 30, 36, \_\_, \_\_, \_\_

6 28, 35, 42, 49, \_\_, \_\_, \_\_

7 8, 16, 24, 32, \_\_, \_\_, \_\_

Write the missing numbers.

8 0 5 10 20 25 30 35 45 50

9 10 15 20 25 35 40 50 55 60 65 70

Week 15, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Draw a number line by fives from 20 to 70 with some missing numbers (35, 40, 60) and ask pupils to fill them in.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Write the following pairs of numbers on the board.  
16 61      34 43      68 48
- Guide:** Work with pupils to circle the greater numbers.  
16 (61)      34 (43)      (68) 48

### Activity 2 Operations: Number patterns

- Draw:** Write 50, 45, 40, \_\_, \_\_.
- Demonstrate:** Show how to fill the missing number in a pattern by counting by fives or tens.
- Guide:** Work with pupils to count by fives or tens and write the missing numbers in the patterns below:  
45, 40, 35, \_\_, 25 (30)  
60, 70, 80, \_\_, 100 (90)
- Guide:** Work with pupils to count by sevens and eights using their hundreds chart and write the next numbers in the patterns below:  
14, 21, 28, \_\_, \_\_, \_\_ (35, 42, 49)  
24, 32, 40, \_\_, \_\_, \_\_ (48, 56, 64)

### Activity 3 Operations: Addition and subtraction

- Demonstrate:** Show how to work out the addition and subtraction problem regrouping using the examples below:

$$\begin{array}{r} 1 \\ 5 \ 3 \\ + 2 \ 8 \\ \hline 8 \ 1 \end{array} \quad \begin{array}{r} 4 \ 13 \\ \cancel{5} \ \cancel{3} \\ - 1 \ 8 \\ \hline 3 \ 5 \end{array}$$

- Guide:** Work with the pupils to work out addition and subtraction with regrouping using the examples:

$$\begin{array}{r} 3 \ 4 \\ + 2 \ 7 \\ \hline \end{array} \quad \begin{array}{r} 4 \ 5 \\ - 2 \ 9 \\ \hline \end{array}$$

## Classwork

- Pupils to work out the activities on page 82.

## Conclusion

- Review addition using tens and ones and ask pupils to add  $46 + 36$  by adding the tens and ones separately.  
( $40 + 30 = 70$ ,  $6 + 6 = 12$ ,  $70 + 12 = 82$ )

## Homework

### Write the next numbers:

- 21, 28, 35, \_\_, \_\_, \_\_
- 24, 32, 40, \_\_, \_\_, \_\_
- 6, 12, 18, \_\_, \_\_, \_\_
- 24, 30, 36, \_\_, \_\_, \_\_

### Add or subtract

- $\begin{array}{r} 3 \ 4 \\ + 2 \ 6 \\ \hline \end{array}$
- $\begin{array}{r} 2 \ 7 \\ + 1 \ 8 \\ \hline \end{array}$
- $\begin{array}{r} 4 \ 0 \\ - 1 \ 6 \\ \hline \end{array}$
- $\begin{array}{r} 3 \ 7 \\ - 1 \ 9 \\ \hline \end{array}$



## Circle the greater number.

- ① 44      40      ② 43      47

## Write the missing number.

- ③ 25, 30, \_\_, 40, 45  
④ 80, 70, \_\_, 50, 40

## Write the next numbers.

- ⑤ 7, 14, 21, 28, \_\_, \_\_, \_\_  
⑥ 8, 16, 24, 32, \_\_, \_\_, \_\_

## Work out.

- ⑦  $\begin{array}{r} 36 \\ + 19 \\ \hline \end{array}$       ⑧  $\begin{array}{r} 60 \\ - 37 \\ \hline \end{array}$       ⑨  $\begin{array}{r} 35 \\ + 18 \\ \hline \end{array}$

|                 |           |       |
|-----------------|-----------|-------|
| Week 16, Day 1: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |

## Introduction

- Ask pupils to count and say the next numbers in the patterns below:

12, 10, 8, \_\_\_\_, \_\_\_\_

15, 12, 9, \_\_\_\_, \_\_\_\_

20, 16, 12, \_\_\_\_, \_\_\_\_

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Show how to count backwards by threes or fours using the hundreds chart and write the next numbers in the patterns below:

40, 36, 32, \_\_\_\_, \_\_\_\_, \_\_\_\_ (28, 24, 20)

60, 57, 54, \_\_\_\_, \_\_\_\_, \_\_\_\_ (51, 48, 45)

- Guide:** Work with pupils to count backwards by threes or fours using their hundreds chart and write the next numbers in the patterns below:

60, 56, 52, \_\_\_\_, \_\_\_\_, \_\_\_\_ (48, 44, 40)

93, 90, 87, \_\_\_\_, \_\_\_\_, \_\_\_\_ (84, 81, 78)

### Activity 2 Operations: Addition

- Demonstrate:** Show how to work out addition involving zero using real objects (sticks, stones)
- 6 + 0 = 6
- Explain that you have 6 stones on one hand and no stones on the other hand, then put them together.
- Guide:** Work with pupils to work out addition involving zero.

$$4 + 0 = \underline{\quad} \quad \underline{\quad} + 0 = 5.$$

## Classwork

- Pupils to work out the activities on page 83.

## Conclusion

- Ask pupils to fill the missing numbers.  $\underline{\quad} + 0 = 3$ ;  $4 + \underline{\quad} = 4$ ;  $8 + 0 = \underline{\quad}$  on the board.

## Homework

Write the next numbers:

1. 54, 51, 48, \_\_\_\_, \_\_\_\_, \_\_\_\_

2. 18, 15, 12, \_\_\_\_, \_\_\_\_, \_\_\_\_

3. 96, 92, 88, \_\_\_\_, \_\_\_\_, \_\_\_\_

4. 20, 16, 12, \_\_\_\_, \_\_\_\_, \_\_\_\_

Add or subtract

5.  $9 + \underline{\quad} = 9$

6.  $\underline{\quad} + 0 = 7$

7.  $5 + 0 = \underline{\quad}$



Write the next numbers.

1 99, 96, 93, \_\_\_\_, \_\_\_\_, \_\_\_\_

2 100, 96, 92, \_\_\_\_, \_\_\_\_, \_\_\_\_

3 80, 76, 72, \_\_\_\_, \_\_\_\_, \_\_\_\_

4 81, 78, 75, \_\_\_\_, \_\_\_\_, \_\_\_\_

5 63, 60, 57, \_\_\_\_, \_\_\_\_, \_\_\_\_

6 60, 56, 52, \_\_\_\_, \_\_\_\_, \_\_\_\_

Work out.

7  $6 + 0 = \underline{\quad}$

8  $\underline{\quad} + 0 = 8$

9  $7 + \underline{\quad} = 7$

10  $\underline{\quad} + 0 = 6$

Week 16, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to say the missing numbers in the following number sentences  
 $\underline{\hspace{1cm}} + 0 = 5$ ,  $1 + \underline{\hspace{1cm}} = 1$ ,  $2 + 0 = \underline{\hspace{1cm}}$

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count backwards by 3s or 4s using their hundreds chart and write the next numbers in the patterns below:  
 $64, 60, 56, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$  (52, 48, 44)  
 $60, 57, 54, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$  (51, 48, 45)

### Activity 2 Operations: Addition

- Demonstrate:** Show how to work out  $25 + 33 = \underline{\hspace{1cm}}$  by identifying: the tens and ones. Use a place value chart as shown:

| Tens | Ones |
|------|------|
| 2    | 5    |
| + 3  | 3    |
| 5    | 8    |

Add 5 ones and 3 ones to get 8 ones.

Add 2 tens to 3 tens to get 5 tens.

$$25 + 33 = \underline{58}$$

- Guide:** Work with pupils to work out  $23 + 44 = \underline{\hspace{1cm}}$ .
  - Add ones to ones:  $3 + 4 = 7$
  - Add tens to tens:  $2 + 4 = 6$
  - Write answer as 6 tens and 7 ones = 67.

### Activity 3 Operations: Addition

- Draw:** Write the following on the board, 'There are 15 mangoes in one tree. There are 12 mangoes in another tree. How many mangoes are there in the two trees?'
- Guide:** Work with the pupils to work out the problem by writing a number sentence  $12 + 15 = 27$  mangoes.

## Classwork

- Pupils to work out the activities on page 84.

## Conclusion

- Work with pupils to count by ones from 101 to 110.

## Homework

### Write the next numbers:

- 18, 21, 24,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
- 30, 27, 24,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
- 24, 28, 32,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
- 60, 56, 52,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

### Add

- $33 + 25 = \underline{\hspace{1cm}}$
- $20 + 49 = \underline{\hspace{1cm}}$
- $43 + 16 = \underline{\hspace{1cm}}$
- $46 + 21 = \underline{\hspace{1cm}}$



## Write the next numbers.

- 92, 88, 84,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
- 93, 90, 87,  $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

## Work out.

- $9 + 0 = \underline{\hspace{1cm}}$
- $\underline{\hspace{1cm}} + 0 = 4$
- $34 + 15 = \underline{\hspace{1cm}}$
- $27 + 21 = \underline{\hspace{1cm}}$
- $16 + 23 = \underline{\hspace{1cm}}$
- $24 + 22 = \underline{\hspace{1cm}}$

## Work out.

- There are 28 books on the first shelf and 21 books on the second shelf. How many books are there in all?  
 $\underline{\hspace{1cm}}$  books
- Otieno has 52 seedlings. He plants 39 of the seedlings. How many seedlings is Otieno left with?  
 $\underline{\hspace{1cm}}$  seedlings

Week 16, Day 3:

Duration:

Roll:

Remarks:



## Introduction

- Guide:** Ask pupils to write the numbers that come before and after the following numbers:

\_\_\_, 101, \_\_\_      \_\_\_, 105, \_\_\_  
\_\_\_, 108, \_\_\_      \_\_\_, 109, \_\_\_

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Show how to count backwards by nines using the hundreds chart and write the missing number in the pattern below:

54, 45, \_\_\_, 27, 18      (36)

- Guide:** Work with pupils to count backwards by threes and write the missing number in the following pattern:

81, 78, \_\_\_, 72, 69      (75)

### Activity 2 Operations: Addition

- Demonstrate:** Show how to work out the addition below as shown:

$$36 + 22 = \underline{\quad}$$

Add ones =  $6 + 2 = 8$ , Add tens =  $3 + 2 = 5$

Write answer = 58 →  $36 + 22 = \underline{58}$

- Guide:** Work with pupils to work out addition of  $19 + 30 = \underline{\quad}$

Add ones =  $9 + 0 = 9$ , Add tens =  $1 + 3 = 4$

Write answer = 49 →  $19 + 30 = \underline{49}$

### Activity 3 Operations: Subtraction

- Draw:** Write 'The teacher has 16 sticks. He gives Mary 5 sticks. How many sticks does he have left?'

- Guide:** Work with the pupils to work out the problem by writing a number sentence:

$$16 - 5 = \underline{11 \text{ sticks.}}$$

## Classwork

- Pupils to work out the activities on page 85.

## Conclusion

- Ask pupils to count by 10s from 10 to 50 and by fives from 5 to 50.

## Homework

### Add

1.  $15 + 12 = \underline{\quad}$       2.  $23 + 25 = \underline{\quad}$

3.  $35 + 11 = \underline{\quad}$       4.  $40 + 29 = \underline{\quad}$

### Write the numbers that come before and after

5. \_\_\_, 100, \_\_\_

6. \_\_\_, 30, \_\_\_

7. \_\_\_, 56, \_\_\_

### Teacher Tip

#### From: Teacher Rose

When guiding pupils, there should be a lot of interaction between the teacher and the pupils. The teacher should pose many questions to the pupils and probe for explanations from them. This will enable the teacher assess the pupils' understanding.

## Write the numbers that come before and after.

1. \_\_\_, 45, \_\_\_      2. \_\_\_, 106, \_\_\_

## Write the missing number.

3. 20, 30, \_\_\_, 50, 60

4. 90, 81, \_\_\_, 63, 54

5. 45, 50, \_\_\_, 60, 65

## Work out.

6.  $31 + 14 = \underline{\quad}$       7.  $24 + 25 = \underline{\quad}$

## Work out.

8. Gitonga has 51 candles. He gives 17 candles to his sister. How many candles is Gitonga left with?

\_\_\_ candles

9. A bookshop sold 23 English books and 29 Math books. How many books were sold in all?

\_\_\_ books

Week 16, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count and write the next numbers in the patterns below:

50, 60, 70, \_\_\_\_, \_\_\_\_, \_\_\_\_

5, 80, 85, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to write the numbers that come before and after the following numbers:

\_\_\_\_, 109, \_\_\_\_

\_\_\_\_, 60, \_\_\_\_

\_\_\_\_, 54, \_\_\_\_

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Introduce the less than (<) and greater than (>) symbol using your elbows. Your right elbow shows greater than and your left elbow shows less than.
  - Explain that when comparing two numbers, the 'arrow' always points at the lesser number as shown below:  
 $43 > 27 \longrightarrow$  43 is greater than 27
  - Emphasise the use of symbols less than with  
 $26 < 50 \longrightarrow$  26 is less than 50
- Guide:** Work with pupils to compare the following numbers using the symbols:  
 $16 \underline{\hspace{1cm}} 13$  and  $23 \underline{\hspace{1cm}} 40$ .  
 $(16 > 13) \quad (23 < 40)$

### Activity 3 Operation: Multiplication

- Demonstrate:** Count by twos from 2 to 20 several times.

- Introduce multiplication using counting by twos through repeated addition as follows:

$2 + 2 = \underline{\hspace{1cm}}$ , means 2, two times written as  $2 \times 2$ .

- Explain that 2 two times, i.e.  $2 \times 2 = 4$

- Draw:** Write more examples.



$$2 + 2 + 2 + 2 = 4 \times 2 = 8$$



$$2 + 2 + 2 + 2 + 2 + 2 = 6 \times 2 = 12$$

- Tell the pupils that the  $\times$  sign means multiply.

- Guide:** Work with pupils to draw diagrams and work out the following by counting in threes:

$$3 \times 2 = \underline{\hspace{1cm}}, \quad 4 \times 3 = \underline{\hspace{1cm}}$$

## Classwork

- Pupils to work out the activities on page 86.

## Conclusion

- Write  $4 \times 2 = \underline{\hspace{1cm}}$  on the board. Ask pupils to work out to find the answer.

## Homework

Write > or <

- 35 \_\_\_\_ 46
- 46 \_\_\_\_ 35
- 20 \_\_\_\_ 40
- 50 \_\_\_\_ 24
- 64 \_\_\_\_ 12
- 99 \_\_\_\_ 100

Write the next numbers

- 75, 70, \_\_\_\_, 60, 55
- 75, 78, \_\_\_\_, 84, 87

Multiply

- $4 \times 2 = \underline{\hspace{1cm}}$
- $3 \times 2 = \underline{\hspace{1cm}}$

**Note:** Remember to give the weekly test.



Write the numbers that come directly before and after.

- \_\_\_\_, 84, \_\_\_\_
- \_\_\_\_, 100, \_\_\_\_

Write > or < inside the circle.

- 32 ○ 37
- 36 ○ 33

- 24 ○ 30
- 35 ○ 31

Write the multiplication problem and the answer.

$$7 \quad \begin{array}{c} \circ \\ \circ \circ \end{array} \begin{array}{c} \circ \\ \circ \circ \end{array} \begin{array}{c} \circ \\ \circ \circ \end{array} = 3 + 3 + 3 = 3 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

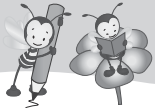
$$8 \quad \begin{array}{c} \triangle \triangle \end{array} \begin{array}{c} \triangle \triangle \end{array} = 4 + 4 = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Write the missing number.

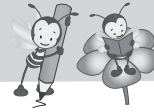
- 55, 60, \_\_\_\_, 70, 75

- 75, 72, \_\_\_\_, 66, 63

|                 |           |       |
|-----------------|-----------|-------|
| Week 16, Day 5: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |



## Speed Test 4



## Check-Up Quiz, Weeks 13–16

Work out:

$16 + 3 = \underline{\quad}$

$19 - 3 = \underline{\quad}$

$12 + 1 = \underline{\quad}$

$12 - 1 = \underline{\quad}$

$5 + 13 = \underline{\quad}$

$17 - 5 = \underline{\quad}$

$15 + 4 = \underline{\quad}$

$16 - 2 = \underline{\quad}$

$6 + 11 = \underline{\quad}$

$11 - 1 = \underline{\quad}$

$10 + 1 = \underline{\quad}$

$18 - 2 = \underline{\quad}$

$7 + 12 = \underline{\quad}$

$14 - 3 = \underline{\quad}$

$16 + 2 = \underline{\quad}$

$19 - 11 = \underline{\quad}$

$3 + 14 = \underline{\quad}$

$17 - 13 = \underline{\quad}$

$0 + 11 = \underline{\quad}$

$18 - 12 = \underline{\quad}$

$10 + 8 = \underline{\quad}$

$16 - 10 = \underline{\quad}$

$1 + 13 = \underline{\quad}$

$19 - 15 = \underline{\quad}$

$11 + 5 = \underline{\quad}$

$0 + 19 = \underline{\quad}$

$14 - 12 = \underline{\quad}$

Write the missing numbers.

1  $32, \underline{\quad}, 48, 56, \underline{\quad}, 72, 80$

Write the next numbers.

2  $87, 90, \underline{\quad}, \underline{\quad}$

Draw the next shapes in the pattern.

3  $\square \triangle \bigcirc \square \triangle \bigcirc \underline{\quad} \underline{\quad} \underline{\quad}$

Write 'is greater than' or 'is less than'.

4  $17 - 5 \underline{\quad} 9 + 5$

Work out.

5  $9 + 0 = \underline{\quad}$

Add or subtract.

6  $25 + 23 = \underline{\quad}$       7  $37 - 14 = \underline{\quad}$

Work out.

8 Chebet made 13 chairs. She sold 7 chairs. How many chairs is Chebet left with?  
 $\underline{\quad}$  chairs

## Introduction

- Ask pupils to work out the additions below using the counting up strategy and starting with the biggest number:

$$7 + 9 + 3 = \underline{\quad\quad\quad} \quad 6 + 4 + 2 = \underline{\quad\quad\quad}$$

$$8 + 1 + 9 = \underline{\quad\quad\quad} \quad 4 + 7 + 2 = \underline{\quad\quad\quad}$$

## Development

### Activity 1 Whole numbers: Comparing numbers

- Demonstrate:** Review the greater than (>) and less than (<) symbols using your elbows.
- Remind pupils that the arrow always points at the lesser number.
- Guide:** Work with pupils and use the greater than and lesser than symbols to compare the numbers below:  
 $14 \underline{\quad\quad} 41$        $(14 < 41)$   
 $20 \underline{\quad\quad} 10$        $(20 > 10)$

### Activity 2 Operations: Addition

- Draw:** Write  $7 + 5 + 3 = \underline{\quad}$  on the board.
- Demonstrate:** Show how to work out addition of 3 numbers by adding 2 numbers at a time. Explain that whatever the two numbers are first added, the result is always the same.
- $7 + 5 + 3$ . Add 7 + 5 to get 12 and then add 12 to 3 to get 15.  
OR  
Add 5 + 3 to get 8 and then add 8 to 7 to get 15.
- Guide:** Work with the pupils to add three numbers by adding 2 numbers at a time, e.g.  $6 + 5 + 4$ .

## Classwork

- Pupils to work out the activities on page 89.

## Conclusion

- Ask pupils to work out the sums below:

$$7 + 5 + 6 = \underline{\quad\quad\quad} \quad 7 + 5 + 6 = \underline{\quad\quad\quad}$$

$$6 + 9 + 4 = \underline{\quad\quad\quad} \quad 6 + 9 + 4 = \underline{\quad\quad\quad}$$

## Homework

Write > or <

- $43 \underline{\quad\quad} 33$
- $52 \underline{\quad\quad} 12$
- $18 \underline{\quad\quad} 8$
- $27 \underline{\quad\quad} 28$
- $100 \underline{\quad\quad} 110$
- $99 \underline{\quad\quad} 9$

Add

- $4 + 6 + 5 = \underline{\quad\quad\quad}$
- $6 + 8 + 3 = \underline{\quad\quad\quad}$
- $3 + 8 + 4 = \underline{\quad\quad\quad}$
- $5 + 4 + 6 = \underline{\quad\quad\quad}$



Write > or < inside the circle.

$$1 \quad 34 \bigcirc 32$$

$$2 \quad 38 \bigcirc 32$$

$$3 \quad 31 \bigcirc 26$$

$$4 \quad 39 \bigcirc 40$$

Write the next numbers.

$$5 \quad \begin{array}{c} \cdot \\ \cdot \\ \cdot \end{array} \quad \begin{array}{c} \cdot \cdot \\ \cdot \cdot \end{array} \quad 0, 10, 20, \underline{\quad}, \underline{\quad}, \underline{\quad}$$

$$6 \quad \begin{array}{c} \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \quad \begin{array}{c} \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \quad 10, 15, 20, \underline{\quad}, \underline{\quad}, \underline{\quad}$$

Work out.

$$7 \quad 6 + 9 + 2 = \underline{\quad\quad\quad} \quad 8 \quad 5 + 7 + 6 = \underline{\quad\quad\quad}$$

$$9 \quad 7 + 4 + 6 = \underline{\quad\quad\quad} \quad 10 \quad 9 + 3 + 5 = \underline{\quad\quad\quad}$$

|                 |           |       |
|-----------------|-----------|-------|
| Week 17, Day 1: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |



## Introduction

- Ask pupils to count by twos from 100 to 110 and also backward by twos from 110 to 100 several times.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count by fives and tens and write the next numbers in the number patterns below:

60, 70, 80, \_\_\_\_, \_\_\_\_, \_\_\_\_ (90, 100, 110)

0, 5, 10, \_\_\_\_, \_\_\_\_, \_\_\_\_ (15, 20, 25)

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Review the greater than (>) and less than (<) symbols using your elbows.
  - Remind pupils that the arrows always points at the lesser number.
  - Use the signs to compare the numbers below:
 

45 \_\_\_\_ 15 (45 > 15)

20 \_\_\_\_ 30 (20 < 30)
- Guide:** Work with pupils to use the symbols to compare pairs of numbers 15 \_\_\_\_ 5 and 20 \_\_\_\_ 40.

### Activity 3 Operations: Addition and subtraction

- Demonstrate:** Show how to work out the subtraction by regrouping 40 as 3 tens 10 ones:

$$\begin{array}{r} 3 \text{ } 10 \\ 4 \text{ } 0 \\ - 2 \text{ } 6 \\ \hline 1 \text{ } 4 \end{array}$$

- Guide:** Work with the pupils to write a matching addition question to:

$$\begin{array}{r} 4 \text{ } 0 \\ - 2 \text{ } 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \text{ } 4 \\ + 2 \text{ } 6 \\ \hline 4 \text{ } 0 \end{array} \quad \text{or} \quad \begin{array}{r} 1 \text{ } 6 \\ + 1 \text{ } 4 \\ \hline 4 \text{ } 0 \end{array}$$

## Classwork

- Pupils to work out the activities on page 91.

## Conclusion

- Ask pupils to count by fives from 80 to 110 several times.
- Ask pupils to count back by fives from 110 to 80 several times.

## Homework

Write < or >

- 16 \_\_\_\_ 8
- 14 \_\_\_\_ 24
- 36 \_\_\_\_ 63
- 20 \_\_\_\_ 50
- 11 \_\_\_\_ 1
- 44 \_\_\_\_ 88

Add and write a matching subtraction

- $\begin{array}{r} 2 \text{ } 8 \\ + 2 \text{ } 7 \\ \hline \end{array}$
- $\begin{array}{r} 4 \text{ } 6 \\ + 1 \text{ } 8 \\ \hline \end{array}$



Write the next numbers.

1 20, 30, 40, \_\_\_\_, \_\_\_\_, \_\_\_\_

2 60, 65, 70, \_\_\_\_, \_\_\_\_, \_\_\_\_

Write > or < inside the circle.

3 43 ○ 46

4 50 ○ 44

5 38 ○ 41

6 47 ○ 42

7 48 ○ 45

8 47 ○ 49

Work out.

$$\begin{array}{r} 60 \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ + 24 \\ \hline \end{array}$$

Week 17, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to work out the next numbers in the patterns below:

110, 100, 90, \_\_\_\_, \_\_\_\_, \_\_\_\_ (80, 70, 60)

40, 42, 44, \_\_\_\_, \_\_\_\_, \_\_\_\_ (46, 48, 50)

## Development

### Activity 1 Whole numbers: Comparing numbers

- Demonstrate:** Review the greater than (>) and less than (<) symbols using your elbows.
  - Remind pupils that the arrows always points at the lesser number.
  - Use the signs to compare the pairs of numbers below:

16 \_\_\_\_ 20 (16 < 20)

33 \_\_\_\_ 15 (33 > 15)

### Activity 2 Operations: Subtraction

- Demonstrate:** Show how to work out the following subtraction as shown below:  
 $36 - 10 = \underline{\quad}$ 
  - Subtract 0 ones from 6 ones to get 6 ones  
 $\rightarrow 6 - 0 = 6$  ones
  - Subtract 1 ten from 3 tens to get 2 tens  
 $\rightarrow 3 - 1 = 2$  tens
  - Write the answer  $\rightarrow 36 - 10 = \underline{26}$
- Guide:** Work with pupils to use the same method to work out  $44 - 22 = \underline{\quad}$

### Activity 3 Fractions: As part of whole

- Demonstrate:** Explain that a fraction is part of a whole. When the whole is divided into two equal parts one of the part is called half, written as  $\frac{1}{2}$ .

- Draw and guide:** Work with pupils to draw different shapes on the board and divide them into halves. Point out and write the halves.

## Classwork

- Pupils to work out the activities on page 92.

## Conclusion

- Draw different shapes. Divide some into half and some not. Have pupils identify the halves.

## Homework

Write > or <

1. 10 \_\_\_\_ 20

2. 20 \_\_\_\_ 18

3. 20 \_\_\_\_ 22

Subtract

4.  $45 - 15 = \underline{\quad}$

5.  $38 - 12 = \underline{\quad}$

6.  $97 - 43 = \underline{\quad}$

7.  $99 - 66 = \underline{\quad}$

8. Draw a circle and a rectangle and shade one half.

### Teacher Tip

From: Teacher Njagi

New topics should be introduced using concrete materials so as to provide pupils with an opportunity not only to visualize, but to handle the materials as well. Ensure that you use easily visible and readily available materials.



Write the next numbers.

1. 40, 50, 60, \_\_\_\_, \_\_\_\_, \_\_\_\_

Write > or < inside the circle.

2. 47 ○ 42

3. 41 ○ 43

Work out.

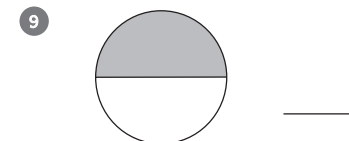
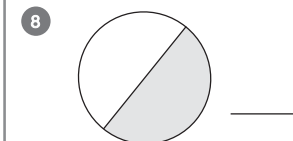
4.  $48 - 22 = \underline{\quad}$

5.  $43 - 21 = \underline{\quad}$

6.  $49 - 33 = \underline{\quad}$

7.  $45 - 14 = \underline{\quad}$

Write the fraction that each part represents.



Week 17, Day 4:

Duration:

Roll:

Remarks:



## Introduction

- Ask pupils to complete the number sentences orally.

$9 + 8 = \underline{\quad}$

$16 - 8 = \underline{\quad}$

$7 + 4 = \underline{\quad}$

$15 - 7 = \underline{\quad}$

$10 + 10 = \underline{\quad}$

$20 - 5 = \underline{\quad}$

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Show pupils how to count by tens and fives and write the next numbers in the number patterns below:

60, 50, 40,     ,     ,       
(30, 20, 10)

85, 90, 95,     ,     ,       
(100, 105, 110)

- Guide:** Work with pupils to count by sevens and eights using their hundreds chart and write the missing numbers in the patterns below:

7, 14,     , 28, 35 (21)

40, 32,     , 16, 8 (24)

### Activity 2 Operations: Subtraction

- Demonstrate:** Show how to work out the following subtraction as shown below:  
 $35 - 12 = \underline{\quad}$ 
  - Subtract 2 ones from 5 ones to get 3 ones  
 $\rightarrow 5 - 2 = 3$  ones
  - Subtract 1 ten from 3 tens to get 2 tens  
 $\rightarrow 3 - 1 = 2$  tens
  - Write the answer  $\rightarrow 35 - 12 = \underline{23}$
- Guide:** Work with pupils to work out the following subtraction question:  $46 - 22 = \underline{\quad}$

## Classwork

- Pupils to work out the activities on page 93.

## Conclusion

- Draw a number line by fives from 50 to 100 but missing 55, 70, 95, 100. Ask pupils to count by fives and write the missing numbers.

## Homework

### Write the missing numbers

- 20, 30,     , 50, 60
- 110, 105,     , 95, 90
- 8, 16,     , 32, 40
- 35, 28,     , 14, 7

### Subtract

- $24 - 13 = \underline{\quad}$
- $40 - 20 = \underline{\quad}$
- $76 - 63 = \underline{\quad}$
- $48 - 42 = \underline{\quad}$

**Note:** Remember to give the weekly test!



## Write the next numbers.

1 110, 100, 90,     ,     ,     

2 75, 80, 85,     ,     ,     

## Write the missing number.

3 28, 35,     , 49, 56

4 88, 80,     , 64, 56

## Work out.

5  $44 - 21 = \underline{\quad}$  6  $48 - 23 = \underline{\quad}$

7  $47 - 32 = \underline{\quad}$  8  $49 - 15 = \underline{\quad}$

9  $9 + 7 = \underline{\quad}$  10  $17 - 8 = \underline{\quad}$

Week 17, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Write the following numbers on the board and ask pupils to identify them:  
107, 119, 100, 120, 115, 101

## Development

### Activity 1 Operations: Basic facts

- Demonstrate:** Show the pupils how to work out the following facts:  
 $11 + 3 = \underline{\quad}$ ,  $10 - 5 = \underline{\quad}$ ,  $9 + 9 = \underline{\quad}$ ,  
 $20 - 15 = \underline{\quad}$ ,  $10 + 8 = \underline{\quad}$ ,  $18 - 7 = \underline{\quad}$
- Guide:** Let pupils work in pairs and ask each other to work out addition and subtraction facts.

### Activity 2 Operations: Addition and subtraction

- Demonstrate:** Show how to work out the addition problem by regrouping  $8 + 7 = 15$  as 1 ten and 5 ones:

$$\begin{array}{r} 1 \\ 2 \ 8 \\ + 1 \ 7 \\ \hline 4 \ 5 \end{array}$$

- Guide:** Work with the pupils to write out a matching subtraction:

$$\begin{array}{r} 4 \ 5 \quad \text{or} \quad 4 \ 5 \\ - 1 \ 7 \quad - 2 \ 8 \\ \hline 2 \ 8 \quad 1 \ 7 \end{array}$$

- Draw and demonstrate:** Write and work out the subtraction problem below:

$$\begin{array}{r} 2 \ 3 \\ - 1 \ 5 \\ \hline 8 \end{array}$$

- Guide:** Work with pupils to write out a matching addition.

$$\begin{array}{r} 1 \ 5 \\ + 8 \\ \hline 2 \ 3 \end{array}$$

### Activity 3 Measurement: Length

- Demonstrate:** Using a metre rule, show pupils how to measure different lengths in the classroom.
- Guide:** Work with pupils to measure different lengths in the classroom using a metre rule.

## Classwork

- Pupils to work out the activities on page 94.

## Conclusion

- Write the following on the board.  $56 - 29 = \underline{\quad}$
- Have pupils solve the problem on the board.

## Homework

### Add or subtract

- $20 + 30 = \underline{\quad}$
- $16 - 8 = \underline{\quad}$
- $9 + 5 = \underline{\quad}$
- $12 - 4 = \underline{\quad}$
- $11 + 5 = \underline{\quad}$
- $14 - 8 = \underline{\quad}$

### Subtract and write a matching addition

- $$\begin{array}{r} 5 \ 0 \\ - 2 \ 3 \\ \hline \end{array}$$
- $$\begin{array}{r} 8 \ 2 \\ - 4 \ 4 \\ \hline \end{array}$$



## Work out.

- $8 + 6 = \underline{\quad}$
- $16 - 8 = \underline{\quad}$
- $20 - 10 = \underline{\quad}$
- $9 + 7 = \underline{\quad}$

## Work out and match.

|                                                     |                                                     |
|-----------------------------------------------------|-----------------------------------------------------|
| $\begin{array}{r} 37 \\ + 17 \\ \hline \end{array}$ | $\begin{array}{r} 54 \\ - 37 \\ \hline \end{array}$ |
| $\begin{array}{r} 60 \\ - 27 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ + 36 \\ \hline \end{array}$ |
| $\begin{array}{r} 51 \\ - 36 \\ \hline \end{array}$ | $\begin{array}{r} 33 \\ + 27 \\ \hline \end{array}$ |

Week 18, Day 1:

Duration:

Roll:

Remarks:

## Introduction


- Ask pupils to count forwards by ones from 80 to 120 and backwards from 120 to 80.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Show pupils how to count by ones and write the next numbers in the following pattern:  
110, 111, \_\_, \_\_ (112, 113)
- Guide:** Work with pupils to count backwards by ones and write the next numbers in the following pattern:  
120, 119, \_\_, \_\_ (118, 117)



### Activity 2 Whole numbers: Counting by 10's

- Draw:** Draw 4 rows of 10 dots on the board as shown below.  

- Guide:** Ask pupils to count by tens and write the number of dots.  
(Each row has 10 dots, 10, 20, 30, 40 → 40 dots)

### Activity 3 Operation: Subtraction

- Demonstrate:** Show how to work out the following subtraction as shown below:
  - $75 - 32 =$  \_\_
  - Subtract 2 ones from 5 ones to get 3 ones →  $5 - 2 = 3$  ones
  - Subtract 3 tens from 7 tens to get 4 tens →  $7 - 3 = 4$  tens
  - Write the answer →  $75 - 32 = 43$
- Guide:** Work with pupils to work out  $46 - 14 =$  \_\_

### Activity 4 Operation: Multiplication

- Draw:** Draw and write the following on the board:  
  
 $3 + 3 + 3 = 3 \times 3 = 9$   
  
 $2 + 2 + 2 + 2 = 2 \times 4 = 8$
- Demonstrate:** Review multiplication using repeated addition.
- Remind the pupils that  $\times$  sign means multiply.
- Guide:** Work with pupils to draw diagrams and work out the following:  
 $3 \times 4 =$  \_\_,  $5 \times 2 =$  \_\_

## Classwork

- Pupils to work out the activities on page 95.

## Conclusion

- Write  $4 \times 2 =$  \_\_. Ask pupils to work out in their books.

## Homework

### Write the next numbers

- 109, 108, 107, \_\_, \_\_, \_\_
- 120, 119, 118, \_\_, \_\_, \_\_
- 107, 108, 109, \_\_, \_\_, \_\_
- 110, 111, 112, \_\_, \_\_, \_\_

### Subtract

- $53 - 20 =$  \_\_
- $83 - 41 =$  \_\_
- $77 - 25 =$  \_\_
- $80 - 50 =$  \_\_

### Multiply

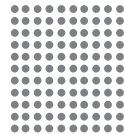
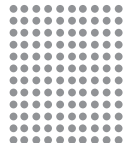
- $4 \times 2 =$  \_\_
- $3 \times 2 =$  \_\_



## Write the next numbers.

- 114, 115, 116, \_\_, \_\_, \_\_
- 113, 112, 111, \_\_, \_\_, \_\_

## Write the number of dots.

-  \_\_
-  \_\_

## Work out.

- $36 - 22 =$  \_\_
- $38 - 13 =$  \_\_
- $35 - 11 =$  \_\_
- $36 - 24 =$  \_\_

## Work out.

- $3 \times 4 =$  \_\_
- $2 \times 3 =$  \_\_

Week 18, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Call out different numbers between 0 and 120 and ask pupils to write them in their books.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count forwards and backwards by ones and write the next numbers in the patterns below.  
109, 108, 107, \_\_, \_\_, \_\_ (106, 105, 104)  
111, 112, 113, \_\_, \_\_, \_\_ (114, 115, 116)

### Activity 2 Operations: Number patterns

- Draw:** Draw a number line by ones from 55 to 70 but missing 56, 60, 62
- Guide:** Work with pupils to fill the missing numbers on the number line.

### Activity 3 Whole numbers: Reading and writing numbers

- Draw:** Write the numbers 101 to 110 on the board and then 111 to 120.
- Guide:** Work with the pupils in reading numbers 101 to 110 and from 111 to 120.

### Activity 4 Operations: Multiplication

- Draw:** Draw and write the following on the board:



$$4 + 4 + 4 = 4 \times 3 = 12$$



$$1 + 1 + 1 + 1 = 1 \times 4 = 4$$

- Demonstrate:** Review multiplication using repeated addition.
- Remind the pupils that  $\times$  sign means multiply.

- Guide:** Work with pupils to draw diagrams and work out the following:

$$1 \times 8 = \_, \quad 3 \times 5 = \_$$

## Classwork

- Pupils to work out the activities on page 96.

## Conclusion

- Ask pupils to work out the missing numbers in the following patterns:  
106, 105, \_\_, 103, 102,  
116, 117, \_\_, 119, 120

## Homework

### Write the next numbers

- 101, 102, 103, \_\_, \_\_
- 116, 117, 118, \_\_, \_\_
- 115, 114, 113, \_\_, \_\_
- 110, 109, 108, \_\_, \_\_

### Multiply

- $1 \times 8 = \_$
- $2 \times 5 = \_$
- $3 \times 3 = \_$
- $4 \times 4 = \_$



## Write the next numbers.

① 120, 119, 118, \_\_, \_\_, \_\_

② 106, 107, 108, \_\_, \_\_, \_\_

## Write the missing numbers.

③ 20 21 22 \_\_ 24 25 26 27 \_\_ 29 30 31 32 33 \_\_ 35

④ 35 36 \_\_ 38 39 40 41 \_\_ 43 44 45 \_\_ 47 48 49 50

## Write numbers from 101 to 120.

⑤ 101 to 120 \_\_\_\_\_

## Work out.

⑥ =  $5 \times \_ = \_$

⑦ =  $3 \times \_ = \_$

⑧ =  $4 \times \_ = \_$

Week 18, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to count by tens from 10 to 120 and back by tens from 120 to 10.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Draw a number line by ones from 45 to 60 but missing 48, 50, 51 and show pupils how to complete the number line.
- Draw:** Draw a number line by ones from 62 to 77 but missing 68, 75, 76.
- Guide:** Work with pupils to complete the missing numbers in the number line.

### Activity 2 Operations: Multiplication

- Guide:** Work with pupils to draw diagrams and work out the following using repeated addition:  
 $2 \times 6 = \underline{\quad}$ ,  $3 \times 6 = \underline{\quad}$

### Activity 2 Patterns

- Demonstrate:** Use the pattern below to explain the rule of a pattern  
 AB AB AB AB      Rule  $\rightarrow$  **AB**
  - Emphasize that the rule is the group of letters that keep on being repeated in the pattern.
- Guide:** Work with pupils to identify the rule in the following pattern  
 CCA CCA CCA  $\underline{\quad}$       Rule  $\rightarrow$  **(CCA)**

### Activity 3 Operations: Subtraction

- Draw and guide:** Ask pupils to work out the following word problem using real objects or counters and write a number sentence.

'Peter has 12 books. He has read 5 books. How many books are left?'

$(12 - 5 = 7 \text{ books})$

## Classwork

- Pupils to work out the activities on page 97.

## Conclusion

- Ask pupils to identify the numbers that come before and after the following numbers:

$\underline{\quad}$  110  $\underline{\quad}$ ,  $\underline{\quad}$  119  $\underline{\quad}$   
 $\underline{\quad}$  99  $\underline{\quad}$

## Homework

### Write the missing numbers

- 5, 10,  $\underline{\quad}$ , 20
- 120, 115,  $\underline{\quad}$ , 105
- 90, 99,  $\underline{\quad}$ , 117
- 9, 18,  $\underline{\quad}$ , 36

### Write the rule of the pattern

- CABCABCAB  $\underline{\hspace{2cm}}$
- ZAZAZAZA  $\underline{\hspace{2cm}}$

### Multiply

- $4 \times 6 = \underline{\quad}$
- $2 \times 6 = \underline{\quad}$
- $3 \times 5 = \underline{\quad}$
- $4 \times 5 = \underline{\quad}$



## Write the missing numbers.

1  $\xrightarrow{\quad}$  20  $\underline{\quad}$  22 23 24 25  $\underline{\quad}$  27 28 29 30 31 32 33 34  $\xrightarrow{\quad}$

## Work out.

2  $2 \times 4 = \underline{\quad}$       3  $1 \times 3 = \underline{\quad}$

## Write the rule of the pattern.

4 AABCAABCAABC  $\underline{\hspace{2cm}}$

5 ABBCABBCABBC  $\underline{\hspace{2cm}}$

## Work out.

- Wambui's book has 36 pages. She has read 23 pages. How many more pages does she still have to read?  
 $\underline{\hspace{2cm}}$  pages
- Teacher Sara had 18 pencils. She bought 21 more pencils. How many pencils does she have altogether?  
 $\underline{\hspace{2cm}}$  pencils

Week 18, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Ask the pupils to work out the following facts orally:

$6 + 6 = \underline{\quad}$

$12 - 6 = \underline{\quad}$

$7 + 7 = \underline{\quad}$

$14 - 7 = \underline{\quad}$

$8 + 8 = \underline{\quad}$

$16 - 8 = \underline{\quad}$

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to identify the numbers that come before and after the following numbers:

$\underline{\quad} 106 \underline{\quad}$

$\underline{\quad} 109 \underline{\quad}$

$\underline{\quad} 115 \underline{\quad}$

$\underline{\quad} 117 \underline{\quad}$

### Activity 2 Operations: Number patterns

- Guide:** Work with pupils to count by fours or threes and write the missing numbers in the following patterns:

$102, 105, \underline{\quad}, 111 \quad (108)$

$120, 116, \underline{\quad}, 108 \quad (114)$

### Activity 2 Patterns

- Demonstrate:** Review how to identify the rule of a pattern using the pattern below:

ZZXYZZXYZZXYZZXY Rule  $\rightarrow$  ZZXY

- Emphasize that the rule is the group of letters that keep on being repeated.

- Guide:** Work with pupils to identify the rule of the following pattern:

BCCBCCBCCBCC Rule  $\rightarrow$  BCC

### Activity 3 Operations: Addition

- Draw and guide:** Work with pupils to work out the following word problem using real objects.

'Njiru bought 5 sweets on Monday and 3 sweets on Tuesday. How many sweets did he buy in all?  $5 + 3 = \underline{8 \text{ sweets}}$

## Classwork

- Pupils to work out the activities on page 98.

## Conclusion

- Working in pairs, ask pupils to write out a letter pattern and give their neighbour to write out the rule.

## Homework

Write the numbers that come before and after

$1. \underline{\quad} 102 \underline{\quad}$

$2. \underline{\quad} 111 \underline{\quad}$

$3. \underline{\quad} 99 \underline{\quad}$

$4. \underline{\quad} 114 \underline{\quad}$

$5. \underline{\quad} 80 \underline{\quad}$

$6. \underline{\quad} 100 \underline{\quad}$

Write the rule of the pattern

$5. \text{ABCAABCAABCA} \underline{\quad}$

$6. \text{CAADCAADCAAD} \underline{\quad}$

**Note:** Remember to give the weekly test!



Write the numbers that come directly before and after.

$1. \underline{\quad}, 104, \underline{\quad}$

$2. \underline{\quad}, 110, \underline{\quad}$

Write the missing number.

$3. 108, 104, 100, \underline{\quad}, 92$

$4. 96, 99, 102, \underline{\quad}, 108$

Write the rule of the pattern.

$5. \text{ABCCABCCABCC} \underline{\quad}$

$6. \text{AAABAAABAAAB} \underline{\quad}$

Work out.

- 7 Fatuma has 34 bananas. She gave 12 bananas to her cousin. How many bananas is she left with?

$\underline{\quad}$  bananas

- 8 Kioni walked 12 kilometres on Saturday and 9 kilometres on Sunday. How many kilometres did Kioni walk on both days?

$\underline{\quad}$  kilometres

Week 18, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Ask pupils to work out the following facts orally:  
 $8 + 7 = \underline{\quad}$      $15 - 8 = \underline{\quad}$      $6 + 5 = \underline{\quad}$   
 $11 - 6 = \underline{\quad}$      $9 + 9 = \underline{\quad}$      $18 - 9 = \underline{\quad}$

## Development

### Activity 1 Operations: Multiplication

- Draw:** Write the following on the board:  
 $0 + 0 + 0 = 0 \times 3 = 0$   
 $0 + 0 + 0 + 0 = 0 \times 4 = 0$
- Demonstrate:** Show how to multiply by 0 using repeated addition.
- Emphasize that  $0 + 0 + 0 + \dots$  will always be 0.
- Guide:** Work with pupils to answer the following:  
 $0 \times 8 = \underline{\quad}$ ,     $5 \times 0 = \underline{\quad}$

### Activity 2 Operations: Multiplication

- Guide:** Work with pupils to draw diagrams and work out the following using repeated addition:  
 $4 \times 3 = \underline{\quad}$ ,     $5 \times 2 = \underline{\quad}$

### Activity 3 Patterns

- Demonstrate:** Review how to identify the rule of a pattern using the patterns below:  
CDACDACDA    Rule  $\rightarrow$  CDA  
 $\ast \bigcirc \triangle \ast \bigcirc \triangle \ast \bigcirc \triangle$     Rule  $\rightarrow$   $\ast \bigcirc \triangle$
- Emphasize that for letters, the rule is the group of letters that keep on being repeated.
- Emphasize that even for shapes, the rule is the group of shapes that keep on being repeated.
- Guide:** Work with pupils to identify the rules of the following patterns:

BCBCBC BC

$\triangle \square \square \triangle \square \square \triangle \square \square$      $\triangle \square \square$

## Classwork

- Pupils to work out the activities on page 99.

## Conclusion

- Write  $0 \times 2 = \underline{\quad}$ . Ask the pupils to work out the answer and write in their exercise books.

## Homework

### Multiply

- $5 \times 4 = \underline{\quad}$
- $6 \times 2 = \underline{\quad}$
- $3 \times 2 = \underline{\quad}$
- $3 \times 6 = \underline{\quad}$
- $3 \times 0 = \underline{\quad}$
- $9 \times 0 = \underline{\quad}$

### Write or draw the rule of the pattern

- CBACBACBACBA
- FGFFGFFGF
- CAADCAADCAAD
- $\triangle \bigcirc \triangle \triangle \bigcirc \triangle \triangle \bigcirc \triangle$



## Multiply.

1  $0 \times 5 = \underline{\quad}$

Write the multiplication and the answer.

2  $3 + 3 + 3 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

Write or draw the rule of the pattern.

3 ABABABAB                     



Week 19, Day 1:

Duration:

Roll:

Remarks:



## Introduction

- Ask the pupils to work out the following facts orally:

$$\begin{array}{lll} 11 + 3 = \_\_\_ & 15 - 5 = \_\_\_ & 10 + 20 = \_\_\_ \\ 14 - 6 = \_\_\_ & 20 - 5 = \_\_\_ & 16 - 6 = \_\_\_ \end{array}$$

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with the pupils to count by twos, fives and tens and work out the next numbers in the patterns below:

$$\begin{array}{ll} 90, 80, 70, \_\_\_, \_\_\_, \_\_\_ & (60, 50, 40) \\ 50, 55, 60, \_\_\_, \_\_\_, \_\_\_ & (65, 70, 75) \\ 110, 112, 114, \_\_\_, \_\_\_, \_\_\_ & (116, 118, 120) \\ 20, 18, 16, \_\_\_, \_\_\_, \_\_\_ & (14, 12, 10) \end{array}$$

### Activity 2 Operations: Addition

- Draw:** Write  $32 + 15 = \_\_\_$  on the board.
- Demonstrate:** Show pupils how to arrange it vertically →

$$\begin{array}{r} 32 \\ + 15 \\ \hline \end{array}$$

- Demonstrate:** Show pupils how to work out the addition by subtracting the ones first and then tens.

$$\begin{array}{r} 32 \\ + 15 \\ \hline 47 \end{array}$$

- Draw:** Write  $33 + 12$  on the board.
- Guide:** Work with the pupils to solve this problem.

$$\begin{array}{r} 33 \\ + 12 \\ \hline 45 \end{array}$$

### Activity 3 Operations: Subtraction

- Guide:** Work with the pupils to solve  $45 - 12 = \_\_\_$  by subtracting the ones from ones and the tens from the tens.

$$\begin{array}{l} 45 - 12 = 4 \text{ tens} - 1 \text{ ten and } 5 \text{ ones} - 2 \text{ ones} \\ = 3 \text{ tens and } 3 \text{ ones} = \underline{33} \end{array}$$

## Classwork

- Pupils to work out the activities on page 100.

## Conclusion

- Ask pupils to arrange the following addition vertically and work it out in their books:

$$26 + 13$$

## Homework

### Write the next numbers

- 45, 40, 35,  $\_\_\_, \_\_\_, \_\_\_$
- 20, 22, 24,  $\_\_\_, \_\_\_, \_\_\_$
- 14, 12, 10,  $\_\_\_, \_\_\_, \_\_\_$
- 50, 40, 30,  $\_\_\_, \_\_\_, \_\_\_$

### Arrange vertically and add

- $65 + 28$
- $27 + 15$



## Write the next numbers.

- 120, 118, 116,  $\_\_\_, \_\_\_, \_\_\_$
- 90, 95, 100,  $\_\_\_, \_\_\_, \_\_\_$
- 120, 110, 100,  $\_\_\_, \_\_\_, \_\_\_$
- 100, 102, 104,  $\_\_\_, \_\_\_, \_\_\_$

## Arrange vertically and work out.

- $37 + 21 = \_\_\_$
- $42 + 15 = \_\_\_$

$$\begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

## Work out.

- $66 - 23 = \_\_\_$
- $35 + 32 = \_\_\_$
- $68 - 41 = \_\_\_$
- $16 + 53 = \_\_\_$

|                 |           |       |
|-----------------|-----------|-------|
| Week 19, Day 2: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |

## Introduction

- Review the greater than and less than symbols using your elbows.
- Ask pupils to use them to compare:  $18 \underline{\hspace{1cm}} 81$  and  $30 \underline{\hspace{1cm}} 20$  ( **$18 < 81$** ) and ( **$30 > 20$** )

## Development

### Activity 1 Operations: Number patterns

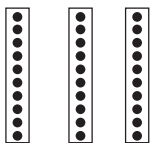
- Guide:** Work with pupils to count by fives and tens and write the next numbers in the patterns below:  
 $80, 85, 90, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$  (**95, 100, 105**)  
 $120, 110, 100, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$  (**90, 80, 70**)

### Activity 2 Operations: Number patterns

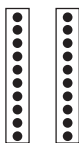
- Draw:** Draw a number line by fives from 20 to 70 but missing 25, 45, 60.
- Guide:** Work with pupils to fill the missing numbers through counting by fives.

### Activity 3 Operations: Multiplication

- Draw:** Draw and write the following on the board:



$$10 + 10 + 10 = 3 \times 10 = \underline{30}$$



$$10 + 10 = 2 \times 10 = \underline{20}$$

- Demonstrate:** Review multiplication using repeated addition.

- Emphasize that multiplication by 10 is the same as counting by tens.
- Guide:** Work with pupils to draw diagrams and work out the following:  
 $4 \times 10 = \underline{\hspace{1cm}}, \quad 5 \times 10 = \underline{\hspace{1cm}}$

### Activity 4 Operations: Addition

- Guide:** Work with the pupils to solve  $26 + 43 = \underline{\hspace{1cm}}$  by adding the ones to ones then the tens to tens separately.  
 $26 + 43 = 2 \text{ tens} + 4 \text{ tens and } 6 \text{ ones} + 3 \text{ ones}$   
 $= 6 \text{ tens and } 9 \text{ ones} = \underline{69}$

## Classwork

- Pupils to work out the activities on page 101.

## Conclusion

- Write  $2 \times 10 = \underline{\hspace{1cm}}$ . Have pupils work out and write the answer in their books. Check and revise on the board.

## Homework

### Add or subtract

- $60 + 20 = \underline{\hspace{1cm}}$
- $32 - 10 = \underline{\hspace{1cm}}$
- $42 + 16 = \underline{\hspace{1cm}}$
- $28 - 18 = \underline{\hspace{1cm}}$
- $16 + 12 = \underline{\hspace{1cm}}$
- $90 - 40 = \underline{\hspace{1cm}}$

### Multiply

- $1 \times 10 = \underline{\hspace{1cm}}$
- $3 \times 10 = \underline{\hspace{1cm}}$
- $0 \times 10 = \underline{\hspace{1cm}}$
- $4 \times 10 = \underline{\hspace{1cm}}$



## Write the next numbers.

1  $120, 115, 110, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

2  $70, 80, 90, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

## Write the missing numbers.

3  $\begin{array}{ccccccccccccccc} 10 & 15 & & 25 & 30 & 35 & & 45 & 50 & & 60 \end{array}$

4  $\begin{array}{ccccccccccccccc} 0 & 5 & 10 & & 20 & & 30 & 35 & 40 & & 50 \end{array}$

## Work out.

5  $4 \times 10 = \underline{\hspace{1cm}}$       6  $2 \times 10 = \underline{\hspace{1cm}}$

## Work out.

7  $34 + 34 = \underline{\hspace{1cm}}$       8  $67 - 54 = \underline{\hspace{1cm}}$

## Write > or < inside the circle.

9  $53 \bigcirc 59$       10  $60 \bigcirc 54$

Week 19, Day 3:

Duration:

Roll:

Remarks:

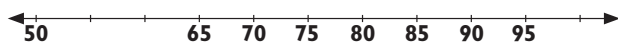
## Introduction

- Ask pupils to count by fives from 5 to 100 using the hundreds chart.
- Ask pupils count back by fives from 100 to 5 using the hundreds chart.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Draw a number line by fives from 50 to 100 but missing 55, 60, 100.



- Guide:** Work with the pupils to fill the missing numbers.

### Activity 2 Whole numbers: Counting

- Demonstrate:** Review tally marks for numbers 1 to 10 by drawing the table below.

|        |         |          |           |             |
|--------|---------|----------|-----------|-------------|
| I      | II      | III      | IIII      | IIII I      |
| 1      | 2       | 3        | 4         | 5           |
| IIII I | IIII II | IIII III | IIII IIII | IIII IIII I |
| 6      | 7       | 8        | 9         | 10          |

- Draw:** Draw groups of objects between 1 and 10
- Guide:** Ask pupils to draw the corresponding tally marks.

### Activity 3 Whole numbers: Comparing numbers

- Demonstrate:** Review the less than (<) and greater than (>) symbols using your elbows.
- Emphasize that the 'arrow' always points at the lesser number

- Guide:** Work with the pupils to compare the following numbers on the board

$$36 \underline{\quad} 63 \quad (36 < 63)$$

$$27 \underline{\quad} 17 \quad (27 > 17)$$

## Classwork

- Pupils to work out the activities on page 102.

## Conclusion

- Write 84 ○ 78 on the board.
- Have pupils use symbols to show the number that is greater than the other.

## Homework

### Write the number

- IIII \_\_\_\_\_
- IIII I \_\_\_\_\_
- IIII III \_\_\_\_\_
- IIII IIII \_\_\_\_\_

### Write > or <

- 6 \_\_\_\_\_ 7
- 12 \_\_\_\_\_ 15
- 20 \_\_\_\_\_ 15
- 11 \_\_\_\_\_ 1

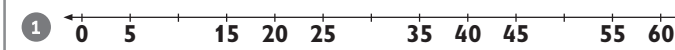
### Teacher Tip

From: Teacher Linda

Tally marks are used in the PRIMR program as a simple tool for counting. What is important is for the learners to use it as another way to carry out counting using groups of five.



## Write the missing numbers.



## Write the number.

- IIII \_\_\_\_\_
- IIII I \_\_\_\_\_

- IIII III \_\_\_\_\_
- IIII IIII \_\_\_\_\_

## Write > or < inside the circle.

- 56 ○ 54
- 49 ○ 53

## Write the missing number.

- 120, 117, 114, \_\_\_\_\_, 108
- 92, 96, 100, \_\_\_\_\_, 108
- 88, 96, 104, \_\_\_\_\_, 120

Week 19, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Select different pupils to write the following numbers on the board:  
111 109 105 120 119
- Ask the other pupils to read as you point them at random.

## Development

### Activity 1 Whole numbers: Counting

- Demonstrate:** Review tally marks for numbers 1 to 10 by drawing the table below.

|   |   |   |   |    |
|---|---|---|---|----|
|   |   |   |   |    |
| 1 | 2 | 3 | 4 | 5  |
|   |   |   |   |    |
| 6 | 7 | 8 | 9 | 10 |

- Guide:** Give pupils different numbers between 1 and 10 and ask pupils to draw the tally marks for the numbers in their exercise books.

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw the groups below on the board.
- Guide:** Ask pupils to count by fives and six then circle the greater number



20



18

### Activity 3 Operations: Multiplication

- Guide:** Work with pupils to work out the following using repeated addition:

$$6 \times 2 = \underline{\quad} \quad 5 \times 10 = \underline{\quad} \quad 7 \times 0 = \underline{\quad}$$

## Classwork

- Pupils to work out the activities on page 103.

## Conclusion

- Ask pupils to work out the following:  
 $6 \times 1 = \underline{\quad}$ ,  $5 \times 3 = \underline{\quad}$ ,  $4 \times 10 = \underline{\quad}$

## Homework

### Draw the tally marks

- ○ \_\_\_\_\_
- ▲ ▲ ▲ \_\_\_\_\_
- ||||| \_\_\_\_\_
- \_\_\_\_\_
- ● ● ● \_\_\_\_\_
- \* \* \* \_\_\_\_\_

### Multiply

- $4 \times 10 = \underline{\quad}$
- $3 \times 5 = \underline{\quad}$
- $2 \times 8 = \underline{\quad}$
- $0 \times 9 = \underline{\quad}$

**Note:** Remember to give the weekly tests.



## Draw tally marks.

- ● \_\_\_\_\_
- ■ ■ \_\_\_\_\_
- ▲ ▲ ▲ \_\_\_\_\_
- ||||| \_\_\_\_\_
- ○ ○ \_\_\_\_\_

## Write the number of circles. Circle the greater number.

- 
- 

## Work out.

- $2 \times 10 = \underline{\quad}$
- $3 \times 10 = \underline{\quad}$
- $3 \times 4 = \underline{\quad}$
- $4 \times 2 = \underline{\quad}$
- $1 \times 2 = \underline{\quad}$
- $8 \times 10 = \underline{\quad}$

|                 |           |       |
|-----------------|-----------|-------|
| Week 19, Day 5: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |

## Introduction

- Guide pupils to measure different lengths in the classroom using a metre rule.

## Development

### Activity 1 Measurement: Length

- Draw:** Draw a line measuring 20 cm on the board.
- Demonstrate:** Use a ruler to demonstrate how to measure the line and write 20 cm next to the line.
- Emphasize to pupils that cm is short form of centimeter.
- Show pupils how to align zero on the ruler with the start of the line.
- Show pupils how to read the ruler by looking at the end of the line and aligning with the ruler.
- Draw:** Draw several lines on the board.
- Guide:** Work with different pupils to measure.

### Activity 2 Whole numbers: Comparing numbers

- Draw:** Draw the following groups on the board.



- Have pupils count and circle the greater number.

### Activity 3 Operations: Multiplication

- Guide:** Work with pupils to work out the following using repeated addition:

$$4 \times 5 = \underline{\quad} \quad 5 \times 3 = \underline{\quad}$$

## Classwork

- Pupils to work out the activities on page 104.

## Conclusion

- Draw different lines on the board.
- Ask pupils to measure them using bottle tops and a ruler.

## Homework

- Draw 5 lines of different lengths in your book.
- Measure them using a ruler and write the length.

### Teacher Tip

From: Teacher Mildren

Do not force pupils to learn at your pace. Pay attention to individual learners and help them learn and practice the different concepts in the lesson, remembering that their pace is different.



## Measure using a ruler.

- \_\_\_\_\_ centimetres
- \_\_\_\_\_ centimetres
- \_\_\_\_\_ centimetres
- \_\_\_\_\_ centimetres

## Write the number of circles. Circle the greater number.



## Work out.

$$7 \quad 3 \times 4 = \underline{\quad} \quad 8 \quad 5 \times 5 = \underline{\quad}$$

Week 20, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Lead the pupils in counting by ones from 120 to 150.

## Development

### Activity 1 Measurement: Length

- Guide:** Work with pupils to measure different lengths in the classroom using a metre rule.

### Activity 2 Measurement: Length

- Draw:** Draw a line measuring 25 cm on the board.
- Demonstrate:** Show the pupils how to measure the line; align 0 mark to the beginning of the line and read the ruler mark at the end of the line.
- Draw:** Draw lines of different lengths on the board.
- Guide:** Ask pupils to measure them.

### Activity 3 Operations: Subtraction

- Guide:** Work with the pupils to solve the word problem below by writing a number sentence.  
'Robert has 12 oranges. He ate 5 of them. How many were left?  
→  $12 - 5 = 7$  oranges

### Activity 4 Operations: Addition and Subtraction

- Guide:** Work with the pupils to solve  $25 + 6 = \underline{\quad}$  and  $40 - 16 = \underline{\quad}$  by regrouping.

$$\begin{array}{r} 1 \\ 25 \\ + 16 \\ \hline 41 \end{array}$$

$$\begin{array}{r} 310 \\ \cancel{4} \cancel{0} \\ - 16 \\ \hline 24 \end{array}$$

## Classwork

- Pupils to work out the activities on page 105.

## Conclusion

- Let pupils repeat counting after you from 150 - 120 by ones.

## Homework

### Add or subtract

$$\begin{array}{r} 1. \quad 25 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 16 \\ + 19 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 57 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 64 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 32 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 60 \\ - 22 \\ \hline \end{array}$$



## Measure using a ruler.

|                               |                               |
|-------------------------------|-------------------------------|
| 1. _____<br>_____ centimetres | 2. _____<br>_____ centimetres |
| 3. _____<br>_____ centimetres | 4. _____<br>_____ centimetres |

## Work out.

- 5 Kipkorir's village has 54 adults. One day 32 of them went to visit a town. How many adults are left in the village?  
\_\_\_\_\_ adults
- 6 Hamisi caught 34 fish. Katana caught 23 fish. How many fish did they catch in all?  
\_\_\_\_\_ fish

## Work out.

|                                                        |                                                        |                                                        |                                                         |
|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|
| 7. $\begin{array}{r} 53 \\ + 27 \\ \hline \end{array}$ | 8. $\begin{array}{r} 74 \\ - 47 \\ \hline \end{array}$ | 9. $\begin{array}{r} 73 \\ - 35 \\ \hline \end{array}$ | 10. $\begin{array}{r} 43 \\ + 29 \\ \hline \end{array}$ |
| _____                                                  | _____                                                  | _____                                                  | _____                                                   |

Week 20, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Ask the pupils to arrange the sum  $36 + 18 = \underline{\quad}$  vertically and work out the answer.

## Development

### Activity 1 Operations: Addition and Subtraction

- Demonstrate:** Show pupils how to work out the word problem below by writing out a number sentence.  
'Class two has 67 pupils. 27 pupils are girls. How many pupils are boys?'  
→  $67 - 27 = \underline{40 \text{ boys}}$
- Draw:** Write 'Class two has 26 girls and 11 boys. How many pupils are there in class 2?'
- Guide:** Work with the pupils using the same method to solve the word problem below by first writing a number sentence.  
→  $26 + 11 = \underline{37 \text{ pupils}}$

### Activity 2 Operations: Addition and Subtraction

- Guide:** Work with pupils to solve the problems below by regrouping.

$$\begin{array}{r} 510 \\ -23 \\ \hline 37 \end{array} \quad \begin{array}{r} 1 \\ 526 \\ +14 \\ \hline 540 \end{array}$$

## Classwork

- Pupils to work out the activities on page 106.

## Conclusion

- Ask pupils to work out the following additions by adding the tens and ones together:  
 $23 + 16 = \underline{\quad}$        $45 + 12 = \underline{\quad}$   
 $10 + 55 = \underline{\quad}$

## Homework

### Add or subtract

$$\begin{array}{r} 1. \quad 663 \\ + 64 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 566 \\ + 317 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 35 \\ + 26 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 60 \\ - 14 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 344 \\ - 12 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 837 \\ - 214 \\ \hline \end{array}$$



## Work out.

- A class has 48 pupils. There are 26 girls. How many boys are there?  
\_\_\_\_\_ boys
- One boy is 22 years old. Another boy is 15 years old. What is the age of two boys altogether?  
\_\_\_\_\_ years old

## Work out.

$$\begin{array}{r} 3. \quad 74 \\ - 58 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 39 \\ + 36 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 70 \\ - 41 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 45 \\ + 28 \\ \hline \end{array} \quad \begin{array}{r} 7. \quad 73 \\ - 38 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 38 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 52 \\ + 19 \\ \hline \end{array} \quad \begin{array}{r} 10. \quad 749 \\ - 528 \\ \hline \end{array} \quad \begin{array}{r} 11. \quad 363 \\ + 274 \\ \hline \end{array}$$

|                 |           |       |
|-----------------|-----------|-------|
| Week 20, Day 3: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |



## Introduction

- Ask the pupils to work out the numbers that come before and after the following numbers:

\_\_\_ 120 \_\_\_      \_\_\_ 130 \_\_\_  
\_\_\_ 140 \_\_\_

## Development

### Activity 1 Operations: Number patterns

- Guide:** Ask pupils to count by ones from 120 to 150 several times.
- Demonstrate:** Show the pupils how to count back by ones from 150 and write the next numbers in the following pattern:  
150, 149, 148, \_\_\_, \_\_\_, \_\_\_ (147, 146, 145)
- Guide:** Work with the pupils to count back by ones from 130 and write the next numbers in the following pattern:  
130, 129, 128, \_\_\_, \_\_\_, \_\_\_ (127, 126, 125)

### Activity 2 Operations: Addition

- Draw:** Write  $26 + 15$  on the board.
- Demonstrate:** Show pupils how to arrange it

vertically and work it out.  $\rightarrow$

$$\begin{array}{r} 1 \\ 26 \\ + 15 \\ \hline 41 \end{array}$$

- Guide:** Work with the pupils to repeat the activity with  $47 + 28$ .

$\rightarrow$

$$\begin{array}{r} 1 \\ 47 \\ + 28 \\ \hline 75 \end{array}$$

### Activity 3 Operations: Addition and subtraction

- Demonstrate:** Show the pupils how to work out

the following addition on the board:  $\rightarrow$

$$\begin{array}{r} 1 \\ 46 \\ + 27 \\ \hline 73 \end{array}$$

- Guide:** Work with the pupils to write out a matching subtraction:

$$\begin{array}{r} 73 \text{ or } 73 \\ - 27 \\ \hline 46 \end{array} \quad \begin{array}{r} 73 \\ - 46 \\ \hline 27 \end{array}$$

## Classwork

- Pupils to work out the activities on page 107.

## Conclusion

- Ask pupils to work out the following additions.

$$\begin{array}{r} 327 \\ + 134 \\ \hline \end{array} \quad \begin{array}{r} 461 \\ + 218 \\ \hline \end{array}$$

## Homework

### Write the next numbers

- 140, 142, 143, \_\_\_, \_\_\_, \_\_\_
- 120, 119, 118, \_\_\_, \_\_\_, \_\_\_
- 150, 149, 148, \_\_\_, \_\_\_, \_\_\_
- 100, 101, 102, \_\_\_, \_\_\_, \_\_\_

### Add and write a matching subtraction

- $\begin{array}{r} 27 \\ + 23 \\ \hline \end{array}$
- $\begin{array}{r} 46 \\ + 38 \\ \hline \end{array}$



## Write the next numbers.

1 144, 145, 146, \_\_\_, \_\_\_, \_\_\_

2 140, 139, 138, \_\_\_, \_\_\_, \_\_\_

## Arrange vertically and work out.

3  $35 + 24 =$  \_\_\_

4  $26 + 28 =$  \_\_\_

## Work out and match.

5  $\begin{array}{r} 38 \\ + 32 \\ \hline \end{array}$

6  $\begin{array}{r} 45 \\ + 29 \\ \hline \end{array}$

7  $\begin{array}{r} 49 \\ + 27 \\ \hline \end{array}$

8  $\begin{array}{r} 70 \\ - 32 \\ \hline \end{array}$

9  $\begin{array}{r} 76 \\ - 27 \\ \hline \end{array}$

10  $\begin{array}{r} 74 \\ - 45 \\ \hline \end{array}$

Week 20, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Ask the pupils to work out the numbers that come before and after the following numbers:

\_\_\_ 140 \_\_\_     \_\_\_ 125 \_\_\_  
\_\_\_ 99 \_\_\_

## Development

### Activity 1 Operations: Addition

- Draw:** Write  $28 + 16$  on the board.
- Demonstrate:** Show the pupils how to arrange it

vertically and work it out:

$$\begin{array}{r} 28 \\ + 16 \\ \hline 44 \end{array}$$

- Guide:** Work with pupils to repeat the activity with

$46 + 27$ : →

$$\begin{array}{r} 46 \\ + 27 \\ \hline 73 \end{array}$$

### Activity 2 Operations: Equivalence

- Demonstrate:** Show the pupils how to balance the statement below to make it equal:

$13 + \underline{\quad} = 20 + 19$  (Both sides must be equal)  
 $\underbrace{13}_{39} \quad \underbrace{20+19}_{39} \quad 39 \rightarrow 39 - 13 = \underline{26}$

- Guide:** Work with the pupils to use the same method to balance  $27 + 10 = \underline{\quad} + 15$

$27 + 10 = \underline{22} + 15$  ( $37 - 15 = 22$ )  
 $\underbrace{27}_{37} \quad \underbrace{22+15}_{37}$

## Classwork

- Pupils to work out the activities on page 108.

## Conclusion

- Ask pupils to balance the following statement:  
 $28 + 11 = \underline{\quad} + 10$

## Homework

Arrange vertically and add

- $25 + 18 = \underline{\quad}$
- $37 + 27 = \underline{\quad}$
- $46 + 28 = \underline{\quad}$

Balance to make equal

- $36 + \underline{\quad} = 29 + 20$
- $18 + 30 = \underline{\quad} + 20$
- $\underline{\quad} + 15 = 26 + 11$

**Note:** Remember to give the weekly tests.



Write the numbers that come before and after.

- \_\_\_, 142, \_\_\_
- \_\_\_, 120, \_\_\_
- \_\_\_, 135, \_\_\_
- \_\_\_, 109, \_\_\_

Arrange vertically and work out.

5  $33 + 19 = \underline{\quad}$

6  $41 + 17 = \underline{\quad}$

Balance to make equal.

7  $28 + 20 = \underline{\quad} + 23$

8  $\underline{\quad} + 34 = 18 + 41$

9  $32 + 16 = 26 + \underline{\quad}$

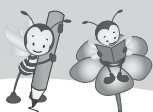
10  $18 + 30 = \underline{\quad} + 25$

Week 20, Day 5:

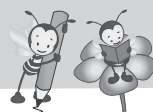
Duration:

Roll:

Remarks:



## Speed Test 5



## Check-Up Quiz, Weeks 17–20

Work out:

$15 - 1 = \underline{\quad}$

$18 + 0 = \underline{\quad}$

$12 - 2 = \underline{\quad}$

$14 + 5 = \underline{\quad}$

$18 - 5 = \underline{\quad}$

$10 + 4 = \underline{\quad}$

$19 - 8 = \underline{\quad}$

$1 + 17 = \underline{\quad}$

$14 - 1 = \underline{\quad}$

$12 + 3 = \underline{\quad}$

$16 - 6 = \underline{\quad}$

$3 + 11 = \underline{\quad}$

$18 - 0 = \underline{\quad}$

$0 + 12 = \underline{\quad}$

$15 - 13 = \underline{\quad}$

$5 + 11 = \underline{\quad}$

$18 - 13 = \underline{\quad}$

$12 + 6 = \underline{\quad}$

$17 - 11 = \underline{\quad}$

$14 + 1 = \underline{\quad}$

$18 - 11 = \underline{\quad}$

$4 + 12 = \underline{\quad}$

$19 - 16 = \underline{\quad}$

$13 + 6 = \underline{\quad}$

$2 + 16 = \underline{\quad}$

$16 - 12 = \underline{\quad}$

$7 + 11 = \underline{\quad}$

Write the next numbers.

1  $149, 148, 147, \underline{\quad}, \underline{\quad}, \underline{\quad}$

Draw the rule of the pattern.

2  $\bullet \bullet \triangle \square \bullet \bullet \triangle \square \underline{\quad}$

Work out.

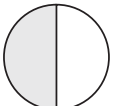
3  $49 - 23 = \underline{\quad}$       4  $25 + 24 = \underline{\quad}$

Work out.

5 
$$\begin{array}{r} 72 \\ -47 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ +25 \\ \hline \end{array}$$

Write the fraction.

6   $\underline{\quad}$

Work out.

7 Bosire drove his car for 25 kilometres on Monday and 32 kilometres on Tuesday. How many kilometres did he drive on the two days?

$\underline{\quad}$  kilometres

## Introduction

- Have pupils count by tens from 200 to 300 and by fives from 250 to 300.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with the the pupils to write the numbers that come before and after the following numbers.

$\underline{\quad} 400 \underline{\quad}$        $\underline{\quad} 182 \underline{\quad}$   
 $\underline{\quad} 257 \underline{\quad}$        $\underline{\quad} 888 \underline{\quad}$

### Activity 2 Operations: Equivalence

- Draw:** Write  $20 + \underline{\quad} = 38 + 11$
- Demonstrate:** Show the pupils how to balance the following statement on the board by first working out  $38 + 11$  to get 49. Then subtract 20 from 49 to get the missing number.

$$49 - 20 = 29$$

$$20 + \underline{29} = 38 + 11 \quad (\text{Both sides must be equal } 49)$$

- Guide:** Work with pupils to balance the statement  $\underline{\quad} + 26 = 23 + 13$  as shown below:

$$\underline{10} + 26 = 23 + 13$$

### Activity 3 Operations: Multiplication

- Guide:** Work with pupils to work out the following using repeated addition:

$$4 \times 0 = \underline{\quad} \quad 5 \times 10 = \underline{\quad}$$

## Classwork

- Pupils to work out the activities on page 111.

## Conclusion

- Write  $\underline{\quad}$ , 568,  $\underline{\quad}$  on the board.
- Have pupils write the numbers that come before and after the number on the board.

## Homework

Write the numbers that come before and after

- $\underline{\quad} 141 \underline{\quad}$
- $\underline{\quad} 149 \underline{\quad}$
- $\underline{\quad} 120 \underline{\quad}$
- $\underline{\quad} 111 \underline{\quad}$

Balance to make equal

- $\underline{\quad} + 25 = 6 + 40$
- $22 + 11 = \underline{\quad} + 20$
- $36 + \underline{\quad} = 17 + 20$
- $15 + 15 = 20 + \underline{\quad}$



Write the numbers that come before and after.

- $\underline{\quad}$ , 137,  $\underline{\quad}$
- $\underline{\quad}$ , 740,  $\underline{\quad}$
- $\underline{\quad}$ , 815,  $\underline{\quad}$
- $\underline{\quad}$ , 923,  $\underline{\quad}$

Balance to make equal.

- $34 + 10 = \underline{\quad} + 22$
- $\underline{\quad} + 37 = 26 + 23$
- $38 + 20 = 34 + \underline{\quad}$
- $\underline{\quad} + 26 = 23 + 24$

Work out.

- $0 \times 3 = \underline{\quad}$
- $4 \times 10 = \underline{\quad}$

Week 21, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by fives from 100 to 150 and by fives from 150 to 100.

## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with the pupils to count by twos, fives or tens to find the next numbers in the patterns below:  
 $120, 122, 124, \_, \_, \_$  (126, 128, 130)  
 $140, 138, 136, \_, \_, \_$  (134, 132, 130)  
 $110, 100, 90, \_, \_, \_$  (80, 70, 60)  
 $110, 115, 120, \_, \_, \_$  (125, 130, 135)

### Activity 2 Operations: Addition and subtraction

- Demonstrate:** Show the pupils how to work out the following problems on the board by regrouping:

$$\begin{array}{r} 1 \\ 36 \\ +28 \\ \hline 64 \end{array} \quad \begin{array}{r} 412 \\ 52 \\ -17 \\ \hline 35 \end{array}$$

(Emphasise regrouping of 12 = 1 ten and 2 ones and 52 = 4 tens and 12 ones before)

- Guide:** Work with the pupils to solve the following to get 71 and 33:

$$\begin{array}{r} 46 \\ +25 \\ \hline \end{array} \quad \begin{array}{r} 52 \\ -19 \\ \hline \end{array}$$

## Classwork

- Pupils to work out the activities on page 112.

## Conclusion

- Have pupils to fill missing numbers in the following patterns:

$146, 144, 142, \_, \_, \_$  (140, 138, 136)

$150, 145, 140, \_, \_, \_$  (135, 130, 125)

## Homework

### Write the next numbers

1.  $100, 110, 120, \_, \_, \_$

2.  $124, 126, 128, \_, \_, \_$

### Add or subtract

$$\begin{array}{r} 3. \quad 40 \\ \quad -11 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 28 \\ \quad +12 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 63 \\ \quad +28 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 92 \\ \quad -24 \\ \hline \end{array} \quad \begin{array}{r} 7. \quad 64 \\ \quad +26 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 80 \\ \quad -44 \\ \hline \end{array}$$



## Write the next numbers.

1.  $136, 138, 140, \_, \_, \_$

2.  $150, 140, 130, \_, \_, \_$

3.  $125, 130, 135, \_, \_, \_$

4.  $134, 132, 130, \_, \_, \_$

## Work out.

$$\begin{array}{r} 5. \quad 13 \\ \quad +13 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 34 \\ \quad -12 \\ \hline \end{array} \quad \begin{array}{r} 7. \quad 19 \\ \quad +19 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 62 \\ \quad -13 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 52 \\ \quad +35 \\ \hline \end{array} \quad \begin{array}{r} 10. \quad 90 \\ \quad -50 \\ \hline \end{array} \quad \begin{array}{r} 11. \quad 87 \\ \quad -46 \\ \hline \end{array} \quad \begin{array}{r} 12. \quad 26 \\ \quad +62 \\ \hline \end{array}$$

Week 21, Day 2:

Duration:

Roll:

Remarks: \_\_\_\_\_

## Introduction

- Draw 5 rows of 8 dots and have pupils use their hundreds chart to count by eights and get the total number of dots: (8, 16, 24, 32, **40 dots**)



## Development

### Activity 1 Operations: Number patterns

- Guide:** Work with pupils to count by twos or tens and write the next numbers in the following patterns:

60, 70, 80, \_\_\_\_, \_\_\_\_, \_\_\_\_ (90, 100, 110)

120, 118, 116, \_\_\_\_, \_\_\_\_, \_\_\_\_ (114, 112, 110)

### Activity 2 Whole numbers: Comparing numbers

- Guide:** Work with the pupils on how to order the following numbers using place value from the least to greatest:

42, 48, 7, 25 → (7, 25, 42, 48)

- Remind them to look at the tens first then the ones.

### Activity 3 Operations: Equivalence

- Demonstrate:** Show the pupils how to balance the statement below on the board:

$52 + 0 + \underline{\quad} = 45 + 30$  (Both sides must equal to 75. Explain that  $45 + 30 = 75$ . Left hand side must be 75.  $75 - 52 = 23$ )

- Guide:** Work with the pupils to balance the statement  $25 + 11 + \underline{\quad} = 16 + 20$  on the board. (First add  $16 + 20 = 36$ . Then add  $25 + 11 = 36$  and lastly subtract  $36 - 36 = 0$ .)

### Activity 4 Operations: Addition

- Guide:** Work with the pupils to revise the addition involving: Example  
→  $3 + 0 = 3$ ,  $10 + 0 = 10$  using real objects.

### Classwork

- Pupils to work out the activities on page 113.

### Conclusion

- Have pupils order the following numbers using place value from the least to the greatest:

28, 18, 86, 82

### Homework

Order from least to greatest

- 32, 50, 36, 55 \_\_\_\_\_
- 14, 41, 12, 21 \_\_\_\_\_

Add or subtract

- $$\begin{array}{r} 26 \\ + 15 \\ \hline \end{array}$$
- $$\begin{array}{r} 43 \\ - 27 \\ \hline \end{array}$$
- $$\begin{array}{r} 37 \\ + 46 \\ \hline \end{array}$$
- $$\begin{array}{r} 60 \\ - 12 \\ \hline \end{array}$$
- $$\begin{array}{r} 83 \\ - 16 \\ \hline \end{array}$$



Write the next numbers.

① 100, 110, 120, \_\_\_\_, \_\_\_\_, \_\_\_\_

② 150, 148, 146, \_\_\_\_, \_\_\_\_, \_\_\_\_

Order from least to greatest.

③ 6 54 57 11 ④ 48 16 19 52

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

Balance to make equal.

⑤  $44 + 0 + 22 = 36 + \underline{\quad}$

⑥  $\underline{\quad} + 31 + 37 = 52 + 16$

Work out.

- $$\begin{array}{r} 88 \\ - 42 \\ \hline \end{array}$$
- $$\begin{array}{r} 15 \\ + 15 \\ \hline \end{array}$$
- $$\begin{array}{r} 57 \\ + 32 \\ \hline \end{array}$$
- $$\begin{array}{r} 84 \\ - 31 \\ \hline \end{array}$$

Week 21, Day 3:

Duration:

Roll:

Remarks: \_\_\_\_\_

## Introduction

- Call different pupils to write the following numbers on the board.  
140, 150, 126, 137, 118, 149.
- Ask the class to read the number orally.

## Development


### Activity 1 Whole numbers: Comparing numbers

- Guide:** Work with the pupils to order the following numbers from least to greatest using place value.  
46, 20, 64, 28 → (20, 28, 46, 64)

### Activity 2 Operations: Number patterns

- Guide:** Have pupils count by threes, fours, fives or six and write the missing numbers in the patterns below:  
120, 123, \_\_\_\_, 129, 132 (126)  
120, 114, \_\_\_\_, 102, 96 (108)  
120, 124, \_\_\_\_, 132, \_\_\_\_ (128, ..., 136)  
135, 130, \_\_\_\_, 120, \_\_\_\_ (125, ..., 115)

### Activity 3 Whole numbers: Counting by 20s

- Draw:** Draw 3 rows of 20 dots.  

- Guide:** Work with the pupils to find the total dots by counting the first row and add 20 to the last row. (20 + 20 = 40 + 20 = 60 dots)

## Classwork

- Pupils to work out the activities on page 114.

## Conclusion

- Remind pupils about addition with zero. Then have pupils balance the following:  
 $23 + 0 + 4 = 17 + \underline{\hspace{1cm}}$   
 $16 + 4 = \underline{\hspace{1cm}} + 12 + 8$

## Homework

### Write the missing number

- 150, 144, \_\_\_\_, 132
- 120, 115, \_\_\_\_, 105
- 120, 123, \_\_\_\_, 129
- 120, 124, \_\_\_\_, 132

### Balance to make equal

- $16 + \underline{\hspace{1cm}} + 12 = 10 + 18$
- $\underline{\hspace{1cm}} + 0 + 27 = 32 + 36$



## Order from least to greatest.

- 19, 60, 56, 22
  - 13, 51, 49, 15
- \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write the missing numbers.

- 132, 135, \_\_\_\_, 141, 144
- 126, 120, \_\_\_\_, 108, 102
- 128, 132, \_\_\_\_, 140, \_\_\_\_
- 150, 145, \_\_\_\_, 135, \_\_\_\_

## Count and write the number of dots.

- 
  - 
- \_\_\_\_

## Balance to make equal.

- $35 + 32 = 43 + \underline{\hspace{1cm}}$
- $\underline{\hspace{1cm}} + 42 + 0 = 30 + 34$

Week 21, Day 4:

Duration:

Roll:

Remarks:



## Introduction

- Have pupils work out the following subtractions by working out the ones and tens together:

$$63 - 21 = \underline{\quad\quad} \quad 46 - 16 = \underline{\quad\quad}$$

$$97 - 15 = \underline{\quad\quad}$$

## Development

### Activity 1 Operations: Number Patterns

- Guide:** Work with the pupils to count by sevens or eights and write the missing numbers in the patterns below:

$$110, 118, 126, \underline{\quad\quad}, 142$$

$$149, 142, 135, \underline{\quad\quad}, 128$$

### Activity 2 Operations: Equivalence

- Demonstrate:** Show pupils how to balance the statement below:

$$\begin{array}{c} 4 + 3 = \underline{\quad\quad} + 4 \\ \underbrace{\quad\quad} \quad \underbrace{\quad\quad} \\ 7 \quad \quad 7 \end{array} \quad \text{(First add } 4 + 3 = 7 \text{ on the left hand side then to get the missing number subtract } 7 - 4 = 3)$$

- Remind pupils that  $4 + 3 = 3 + 4$  because the order of numbers in addition does not change the answer.
- Guide:** Work with the pupils repeat the activity with  $6 + 2 = \underline{\quad\quad} + 6$

$$\begin{array}{c} 6 + 2 = \underline{2} + 6 \\ \underbrace{\quad\quad} \quad \underbrace{\quad\quad} \\ 8 \quad \quad 8 \end{array}$$

### Activity 3 Measurement: Money

- Demonstrate:** Show pupils different denominations of money and write their values on the board. Show 100, 200, 500 shillings notes

- Guide:** Work with the pupils to write the values of their different currency denominations.

## Classwork

- Pupils to work out the activities on page 115.

## Conclusion

- Show pupils different denominations of money and have them say the value. (50, 100, 200, 500, 1000)

## Homework

### Subtract

$$1. \quad 63 - 21 = \underline{\quad\quad}$$

$$2. \quad 40 - 10 = \underline{\quad\quad}$$

$$3. \quad 65 - 11 = \underline{\quad\quad}$$

$$4. \quad 47 - 13 = \underline{\quad\quad}$$

$$5. \quad 99 - 63 = \underline{\quad\quad}$$

$$6. \quad 54 - 13 = \underline{\quad\quad}$$

### Balance to make equal

$$7. \quad 7 + 3 = \underline{\quad\quad} + 7$$

$$8. \quad 4 + 5 = \underline{\quad\quad} + 4$$

$$9. \quad 9 + 1 = \underline{\quad\quad} + 9$$

### Complete the pattern

$$10. \quad 64, 56, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}$$

$$11. \quad 49, 42, \underline{\quad\quad}, \underline{\quad\quad}, \underline{\quad\quad}$$

**Note:** Remember to give the weekly test.



## Work out.

$$1. \quad 58 - 24 = \underline{\quad\quad}$$

$$2. \quad 56 - 31 = \underline{\quad\quad}$$

## Write the missing number.

$$3. \quad 119, 126, \underline{\quad\quad}, 140, 147$$

## Balance to make equal.

$$4. \quad \begin{array}{c} \cdot \cdot \cdot \cdot \\ 6 + 2 = \underline{\quad\quad} + 6 \end{array} \quad 5. \quad \begin{array}{c} \cdot \cdot \cdot \cdot \\ 5 + 4 = 4 + \underline{\quad\quad} \end{array}$$

## Write the value.



Week 21, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by ones from 150 to 170.

## Development

### Activity 1 Operations: Subtraction

- Guide:** Have pupils work out the following subtraction by subtracting the ones first and then the tens

$$65 - 23 = 42$$

$$(\text{Ones} - \text{Ones} = 5 - 3 = 2;$$

$$\text{Tens} - \text{Tens} = 6 - 2 = 4)$$

### Activity 2 Whole Numbers: Comparing numbers

- Demonstrate:** Remind pupils about the less than (<) and greater than (>) symbols using your elbows.
- Remind them that the arrow always points at the lesser number.
- Compare 50 and 20 using the symbols  
 $\rightarrow 50 > 20$
- Guide:** Have pupils repeat the activity with  
 $25 \underline{\hspace{1cm}} 30$ . ( $25 < 30$ )

### Activity 3 Operations: Equivalence

- Guide:** Remind pupils that the order in addition does not change the answer. Then have them find the missing number in  $3 + 4 = \underline{\hspace{1cm}} + 3$ .

(4)

### Activity 4 Measurement: Money

- Demonstrate:** Show pupils different denominations of money and write their values on the board. (10, 20, 50, 100, 200, 500 shillings)
- Guide:** Have pupils copy these values onto their books.

## Classwork

- Pupils to work out the activities on page 116.

## Conclusion

- Write  $5 + 6 = \underline{\hspace{1cm}} + 4$  on the board.
- Have pupils balance to make equal.

## Homework

Write > or <

1.  $40 \underline{\hspace{1cm}} 30$

2.  $16 \underline{\hspace{1cm}} 61$

3.  $25 \underline{\hspace{1cm}} 26$

4.  $14 \underline{\hspace{1cm}} 13$

5.  $98 \underline{\hspace{1cm}} 81$

6.  $11 \underline{\hspace{1cm}} 22$

Balance to make equal

7.  $4 + 2 = \underline{\hspace{1cm}} + 4$

8.  $3 + 6 = 6 + \underline{\hspace{1cm}}$

9.  $7 + \underline{\hspace{1cm}} = 1 + 7$

### Teacher Tip

From: Teacher Njagi

Having learnt addition, subtraction and multiplication facts, you should create an opportunity for the pupils to master them through games, songs or rhymes.



Work out.

1.  $54 - 23 = \underline{\hspace{1cm}}$

2.  $57 - 34 = \underline{\hspace{1cm}}$

Write > or < inside the circle.

3.  $68 \bigcirc 66$

4.  $63 \bigcirc 70$

5.  $65 \bigcirc 61$

6.  $62 \bigcirc 64$

Balance to make equal.

7.  $3 + 4 = \underline{\hspace{1cm}} + 3$

8.  $6 + \underline{\hspace{1cm}} = 2 + 6$

Write the value.



Week 22, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Write the numbers 150 to 170 on the board and have pupils write them in their books.
- Have pupils read out these numbers.

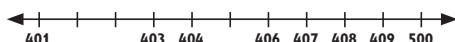
## Development

### Activity 1 Operations: Number Patterns

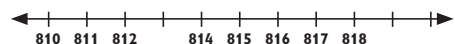
- Demonstrate:** Count forward and backward by ones and write the next number in the patterns below:  
160, 161, 162, \_\_\_\_, \_\_\_\_, \_\_\_\_ (163, 164, 165)  
170, 169, 168, \_\_\_\_, \_\_\_\_, \_\_\_\_ (167, 166, 165)
- Guide:** Have pupils count forward and backward by ones and write the next number in the patterns below:  
140, 141, 142, \_\_\_\_, \_\_\_\_, \_\_\_\_ (143, 144, 145)  
155, 154, 153, \_\_\_\_, \_\_\_\_, \_\_\_\_ (152, 151, 150)

### Activity 2 Operations: Number Patterns

- Draw:** Draw a number line by ones from 400 to 410 but missing 401, 402, 405.



- Demonstrate:** Count by ones and write the missing numbers.
- Draw:** Draw a number line by ones from 810 to 820 but missing 813, 819, 820.



- Guide:** Have pupils count by ones and write the missing numbers.

### Activity 3 Whole Numbers: Comparing numbers

- Demonstrate:** Remind pupils about the less than (<) and greater than (>) symbols using your elbows.
- Guide:** Have pupils compare the following numbers using the symbols < and >.  
46 \_\_\_\_ 47 (<)      16 \_\_\_\_ 14 (>)

## Classwork

- Pupils to work out the activities on page 117.

## Conclusion

- Say the following numbers and have pupils write them in their books.

400, 480, 230, 810, 890

## Homework

### Write the next numbers

- 155, 154, 153, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 160, 161, 162, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 170, 169, 168, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 148, 149, 150, \_\_\_\_, \_\_\_\_, \_\_\_\_

### Write > or <

- 64 \_\_\_\_ 60
- 27 \_\_\_\_ 30
- 46 \_\_\_\_ 64
- 38 \_\_\_\_ 37



## Write the next numbers.

- 150, 151, 152, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 166, 165, 164, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 156, 157, 158, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 150, 149, 148, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write the missing numbers.

- 330 331 332 333 \_\_\_\_ 335 \_\_\_\_ 337 338 \_\_\_\_ 340
- 940 941 942 943 944 \_\_\_\_ 946 947 948 \_\_\_\_ 950

## Write > or < inside the circle.

- 64 ○ 67
- 61 ○ 59
- 70 ○ 69
- 63 ○ 68

Week 22, Day 2:

Duration:

Roll:

Remarks:

### Introduction

- Have pupils count by ones and write the next number in the following patterns.

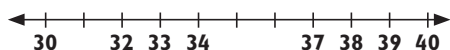
155, 156, \_\_, \_\_ (157, 158)

170, 169, \_\_, \_\_ (170, 171)

### Development

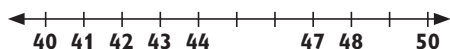
#### Activity 1 Operations: Number patterns

- Draw:** Draw a number line by ones from 30 to 40 but missing 31, 35, 36.



- Demonstrate:** Count by ones and write the missing numbers.

- Draw:** Draw another number line by ones from 40 to 50 but missing 45, 46, 49.



- Guide:** Have pupils count by ones and write the missing numbers.

#### Activity 2 Operations: Subtraction

- Draw:** Write 40 - 27 on the board.
- Demonstrate:** Arrange the work vertically then work out the subtraction:

$$\begin{array}{r} 3 \ 10 \\ 4 \ 0 \\ - 2 \ 7 \\ \hline 1 \ 3 \end{array} \quad \text{(Emphasize regrouping of 40 as 3 tens and 10 ones)}$$

- Guide:** Have pupils repeat the activity with

$$33 - 17 \rightarrow \begin{array}{r} 2 \ 13 \\ 3 \ 3 \\ - 1 \ 7 \\ \hline 1 \ 6 \end{array}$$

#### Activity 3 Whole numbers: Writing numbers

- Guide:** Have pupils write the numbers 151 to 160 as you walk around.

#### Activity 4 Operations: Subtraction

- Draw:** Write the following word problem on the board.  
'Rahab had 48 stones. She gave 18 to James. How many stones did she have left?'
- Guide:** Have pupils work it out by writing a number sentence:

$$\rightarrow 48 - 18 = \underline{30 \text{ stones}}$$

### Classwork

- Have pupils work out the activities on page 118.

### Conclusion

- Have pupils work out the numbers that come before and after the following numbers:  
\_\_\_ 150 \_\_\_, \_\_\_ 156 \_\_\_, \_\_\_ 161 \_\_\_,  
\_\_\_ 169 \_\_\_

### Homework

Write the numbers 150 to 170

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Arrange vertically and subtract

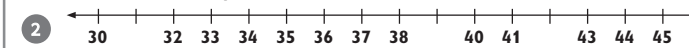
- 40 - 13
- 63 - 25
- 96 - 27
- 38 - 19



Write the next numbers.

1 166, 167, 168, \_\_, \_\_, \_\_

Write the missing numbers.



Arrange vertically and work out.

3 65 - 8 = \_\_\_ 4 267 - 31 = \_\_\_

$$\begin{array}{r} \phantom{00} \\ \phantom{00} \\ \phantom{00} \end{array}$$

Write the numbers.

5 451 to 455 \_\_\_\_\_

6 856 to 860 \_\_\_\_\_

Work out.

- Mzee Hassan had 63 cows. He sold 41 cows. How many cows was Mzee Hassan left with?
- There are 36 story books and 33 science books. How many books are there in all?

\_\_\_\_\_ cows

\_\_\_\_\_ books

|                 |           |       |
|-----------------|-----------|-------|
| Week 22, Day 3: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |

## Introduction

- Have pupils work out the numbers that come before and after the following numbers:

\_\_\_ 131 \_\_\_,      \_\_\_ 155 \_\_\_,  
\_\_\_ 163 \_\_\_,      \_\_\_ 168 \_\_\_

## Development

### Activity 1 Operations: Subtraction

- Demonstrate:** Show pupils how to arrange  $46 - 17 =$  \_\_\_ vertically then work out the problem:

$$\begin{array}{r} 3 \ 16 \\ -1 \ 7 \\ \hline 2 \ 9 \end{array}$$
 (46 has been regrouped into 3 tens and 16 ones)

- Guide:** Have pupils repeat the activity with

$$\begin{array}{r} 5 \ 13 \\ -2 \ 5 \\ \hline 3 \ 8 \end{array}$$
 $63 - 25 \rightarrow$

### Activity 2 Whole numbers: Counting by 20's

- Draw:** Draw 3 rows of 20 dots.



- Guide:** Work with the pupils to count the dots by counting the 20 dots in the first row then adding 20 for each of the other rows:



$20 + 20 = 40$ ,       $40 + 20 = \underline{60 \text{ dots}}$

### Activity 3 Measurement: Money

- Draw:** Write the following word problem on the board:

Kazungu has 34 shillings. Njoki has 52 shillings. How much money do they have altogether?

- Guide:** Have pupils work it out by writing a number sentence.

$\rightarrow 34 + 52 = \underline{86 \text{ shillings}}$

## Classwork

- Have pupils work out the activities on page 119.

## Conclusion

- Have pupils work out the next numbers in the following patterns.

162, 163, 164, \_\_\_, \_\_\_, \_\_\_

155, 154, 153, \_\_\_, \_\_\_, \_\_\_

## Homework

### Write the numbers that come before and after

- \_\_\_ 140 \_\_\_
- \_\_\_ 162 \_\_\_
- \_\_\_ 155 \_\_\_
- \_\_\_ 111 \_\_\_
- \_\_\_ 100 \_\_\_
- \_\_\_ 126 \_\_\_

### Arrange vertically and subtract

- $36 - 17$
- $94 - 28$
- $63 - 19$
- $82 - 45$



## Write the numbers that come before and after.

- \_\_\_, 154, \_\_\_
- \_\_\_, 168, \_\_\_
- \_\_\_, 160, \_\_\_
- \_\_\_, 149, \_\_\_

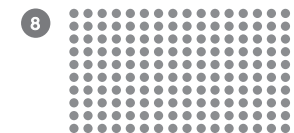
## Arrange vertically and work out.

- $162 - 44 =$  \_\_\_
- $65 - 23 =$  \_\_\_

$$\begin{array}{r} - \\ \hline \end{array}$$

$$\begin{array}{r} - \\ \hline \end{array}$$

## Count and write the number.



## Work out.

- Children in a party drank 38 bottles of Fanta and 25 bottles of Coca-Cola. How many bottles of soda did they drink? \_\_\_\_\_ bottles of soda
- Mwendwa had 62 shillings. She spent 30 shillings. How much money was Mwendwa left with? \_\_\_\_\_ cents

Week 22, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Ask the pupils to complete the following facts orally.

$$11 + 3 = \_, \quad 15 - 5 = \_, \quad 12 + 8 = \_,$$

$$16 - 6 = \_, \quad 13 + 4 = \_, \quad 9 - 7 = \_$$

## Development

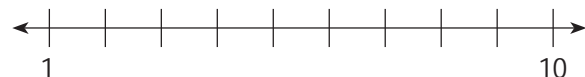
### Activity 1 Operations: Number patterns

- Guide:** Have pupils work out the number that come before and after the following numbers:

\_\_\_ 127 \_\_\_, \_\_\_ 160 \_\_\_

### Activity 2 Operations: Number patterns

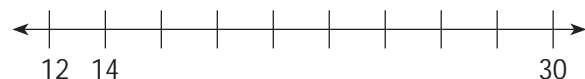
- Draw:** Draw a number line with 10 marks. Write 1 and 10 on the first and last marks.



- Demonstrate:** Count by ones and write 2, 3, 4, 5, 6, 7, 8, 9 on the other marks



- Draw:** Now draw a number line with 10 marks but write 12 on the first mark and 30 on the last mark.



- Guide:** Have pupils count by ones and write numbers on the other number line.

### Activity 3 Operations: Number patterns

- Guide:** Have pupils count by twos, fives or tens and work out the missing numbers in the following patterns:

96, 98, \_\_\_, 102, \_\_\_ (100, ....., 104)

145, 140, \_\_\_, 130, \_\_\_ (135, ....., 125)

140, 130, \_\_\_, 110, \_\_\_ (120, ....., 100)

## Classwork

- Have pupils work out the activities on page 120.

## Conclusion

- Have pupils count back by ones from 170 to 150 several times.

## Homework

Write the numbers that come before and after

1. \_\_\_ 110 \_\_\_ 2. \_\_\_ 146 \_\_\_

3. \_\_\_ 150 \_\_\_

Write the missing numbers

4. 130, 140, \_\_\_, 160, \_\_\_

5. 162, 164, \_\_\_, 168, \_\_\_

6. 135, 130, \_\_\_, 120, \_\_\_

7. 150, 140, \_\_\_, 120, \_\_\_

8. 144, 142, \_\_\_, 138, \_\_\_

9. 130, 135, \_\_\_, 145, \_\_\_

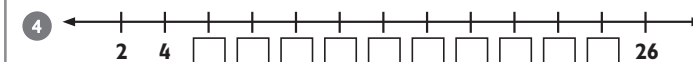
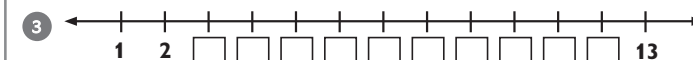
**Note:** Remember to give the weekly test!



Write the numbers that come before and after.

① \_\_\_, 163, \_\_\_ ② \_\_\_, 130, \_\_\_

Write the missing numbers.



Write the missing numbers.

⑥ 162, 164, \_\_\_, 168, \_\_\_

⑦ 140, 138, \_\_\_, 134, \_\_\_

⑧ 160, 155, \_\_\_, 145, \_\_\_

⑨ 155, 160, \_\_\_, 170, \_\_\_

Week 22, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Give pupils some currency notes and coins of different values.
- Have pupils identify the notes and coins.

## Development

### Activity 1 Operations: Number patterns

- **Demonstrate:** Count by threes or six and write the missing numbers in the following patterns:  
93, 96, \_\_, 102, \_\_ (99 ..... 105)  
150, 144, \_\_, 132, \_\_ (138 ..... 126)
- **Guide:** Have pupils count by threes or six and write the missing numbers in the following patterns:  
150, 147, \_\_, 141, \_\_ (144 ..... 138)  
102, 108, \_\_, 120, \_\_ (114 ..... 126)

### Activity 2 Operations: Addition

- **Guide:** Revise with pupils additions involving zero as:  $3 + 0 = 3$ ,  $5 + 0 = 5$  by using real objects to demonstrate.

### Activity 3 Operations: Equivalence

- **Demonstrate:** Show how to balance the following addition statement on the board:

$$43 + 0 + \underline{\quad} = 25 + 31$$

$$\begin{array}{r} 43 + 0 + \underline{11} = 25 + 31 \\ \underbrace{\quad\quad\quad}_{56} \quad \underbrace{\quad\quad\quad}_{56} \end{array}$$

- **Guide:** Have pupils balance  $0 + \underline{\quad} + 22 = 52 + 15$ .

$$\begin{array}{r} 0 + \underline{45} + 22 = 52 + 15 \\ \underbrace{\quad\quad\quad}_{67} \quad \underbrace{\quad\quad\quad}_{67} \end{array}$$

## Classwork

- Have pupils work out the activities on page 121.

## Conclusion

- Count by ones from 150 to 200.
- Have pupils repeat this several times.

## Homework

### Write the missing numbers

1. 93, 96, \_\_, 102, \_\_
2. 93, 90, \_\_, 84, \_\_
3. 84, 90, \_\_, 102, \_\_
4. 84, 78, \_\_, 66, \_\_

### Balance to make equal

5.  $0 + \underline{\quad} + 26 = 34 + 22$
6.  $46 + \underline{\quad} + 12 = 28 + 30$







## Write the missing numbers.

1. 120, 114, \_\_, 102, 96
2. 144, 150, \_\_, 162, 168
3. 120, 117, \_\_, 114, \_\_

## Balance to make equal.

4.  $37 + 0 + \underline{\quad} = 42 + 17$
5.  $26 + 30 = 32 + \underline{\quad} + 24$
6.  $40 + 25 = \underline{\quad} + 32 + 0$

## Write the value.

|                                                                                        |                                                                                        |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 7   | 8   |
| 9  | 10  |

Week 23, Day 1:

Duration:

Roll:

Remarks:



## Introduction

- Count back by ones from 200 to 180.
- Have pupils repeat his several times.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Count forwards and backwards by ones and write the missing numbers in the following patterns:

190, 191, 192, \_\_\_\_, \_\_\_\_, \_\_\_\_ (193, 194, 195)

170, 169, 168, \_\_\_\_, \_\_\_\_, \_\_\_\_ (167, 166, 165)

- Guide:** Have pupils count forwards and backwards by ones and write the missing numbers in the following patterns:

175, 174, 173, \_\_\_\_, \_\_\_\_, \_\_\_\_ (172, 171, 170)

157, 158, 159, \_\_\_\_, \_\_\_\_, \_\_\_\_ (160, 161, 162)

### Activity 2 Whole numbers: Reading and writing numbers

- Draw:** Write the numerals 191 to 200 on the board.
- Demonstrate:** Point to each number and say the number.
- Guide:** Work with pupils to say and write the numbers in the air.

### Activity 3 Operations: Equivalence

- Demonstrate:** Show how to balance the addition statement below on the board:

$$64 + \underline{\quad} + 10 = 32 + 42 \quad (Q)$$

$\underbrace{64 + \underline{\quad}}_{74}$

$\underbrace{32 + 42}_{74}$

- Guide:** Work with pupils to balance  $26 + 33 = \underline{\quad} + 0 + 32$  using the same method.

$$26 + 33 = \underline{27} + 0 + 32$$

$\underbrace{26 + 33}_{59}$

$\underbrace{27 + 32}_{59}$

## Classwork

- Have pupils work out the activities on page 122.

## Conclusion

- Have pupils balance the following statement:  
 $36 + \underline{\quad} + 13 = 42 + 7$

## Homework

Write the numbers 191 to 200

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Balance to make equal

- $23 + \underline{\quad} + 32 = 45 + 10$
- $16 + 0 + \underline{\quad} = 26 + 32$
- $46 + \underline{\quad} + 0 = 34 + 23$
- $32 + 43 = 20 + 0 + \underline{\quad}$



Write the next numbers.

① 170, 171, 172, \_\_\_\_, \_\_\_\_, \_\_\_\_

② 199, 198, 197, \_\_\_\_, \_\_\_\_, \_\_\_\_

③ 176, 177, 178, \_\_\_\_, \_\_\_\_, \_\_\_\_

④ 190, 189, 188, \_\_\_\_, \_\_\_\_, \_\_\_\_

Write the numbers.

⑤ 191 to 195 \_\_\_\_\_

⑥ 196 to 200 \_\_\_\_\_

Balance to make equal.

⑦  $44 + 0 + \underline{\quad} = 35 + 20$

⑧  $0 + \underline{\quad} = 26 + 42$

⑨  $42 + 15 = \underline{\quad} + 34 + 0$

Week 23, Day 2:

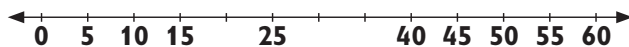
Duration:

Roll:

Remarks:

## Introduction

- Draw a number line by fives from 0 to 60 but missing 20, 30, 35.



- Have pupils write the missing numbers.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Count forwards and backwards by ones and write the next numbers in the following patterns:

165, 166, 167, \_\_, \_\_, \_\_ (168, 169, 170)

165, 164, 163, \_\_, \_\_, \_\_ (162, 161, 160)

- Guide:** Have pupils count forwards and backwards by ones and write the next numbers in the following patterns:

173, 172, 171, \_\_, \_\_, \_\_ (170, 169, 168)

173, 174, 175, \_\_, \_\_, \_\_ (176, 177, 178)

### Activity 2 Operations: Number patterns

- Demonstrate:** Count by tens or twos and write the missing numbers in the following patterns:

140, 142, \_\_, 146, 148 (144)

200, 190, \_\_, 170, 160 (180)

- Guide:** Count by tens or twos and work with pupils to write the missing numbers in the following patterns:

120, 130, \_\_, 150, 160 (140)

160, 158, \_\_, 154, 152 (156)

### Activity 3 Whole numbers: Reading and writing numbers

- Draw:** Write the numbers 181 to 190 on the board.

- Guide:** Ask pupils to say the numbers and write them in the air.

## Classwork

- Pupils to work out the activities on page 123.

## Conclusion

- Have different pupils write the following numerals on the board.

184, 163, 190, 200, 145

## Homework

### Write the next numbers

1. 146, 147, 148, \_\_, \_\_, \_\_

2. 194, 195, 196, \_\_, \_\_, \_\_

3. 200, 199, 198, \_\_, \_\_, \_\_

4. 142, 141, 140, \_\_, \_\_, \_\_

### Write the missing number

5. 200, 190, \_\_, 170, 160

6. 100, 110, \_\_, 130, 140

7. 184, 182, \_\_, 178, 176

8. 192, 194, \_\_, 198, 200

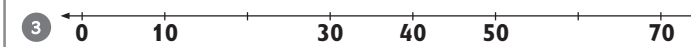


## Write the next numbers.

1 185, 186, 187, \_\_, \_\_, \_\_

2 102, 101, 100, \_\_, \_\_, \_\_

## Write the missing numbers.



## Write the missing number.

4 160, 170, \_\_, 190, 200

5 192, 190, \_\_, 186, 184

6 150, 140, \_\_, 120, 110

7 192, 194, \_\_, 198, 200

## Write the numbers.

8 181 to 190 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Week 23, Day 3:

Duration:

Roll:

Remarks:

### Introduction

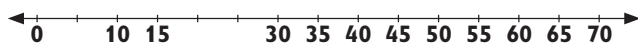
- Have pupils write the numbers that come before and after the following numbers:

\_\_\_ 199 \_\_\_, \_\_\_ 100 \_\_\_,  
\_\_\_ 145 \_\_\_, \_\_\_ 168 \_\_\_

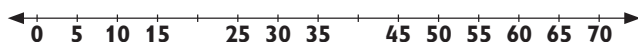
### Development

#### Activity 1 Whole numbers: Number patterns

- Draw:** Draw a number line by fives from 0 to 70 but missing 5, 20, 25.



- Demonstrate:** Count by fives and write the missing number.
- Draw:** Draw a number line by tens from 0 to 70 but missing 20, 40.



- Guide:** Have pupils count by tens and write the missing numbers.

#### Activity 2 Operations: Addition

- Demonstrate:** Revise with the pupils addition using tens and ones by working out  $26 + 32$ . Arrange the two numbers vertically as shown.

$$\begin{array}{r} 26 \\ + 32 \\ \hline 58 \end{array}$$

Add ones to ones  $6 + 2 = 8$ , add tens  $2 + 3 = 5$ ,  $26 + 32 = 5$  tens 8 ones = **58**

- Guide:** Have pupils repeat the activity by adding

$$52 + 36 = \underline{\quad\quad}$$

$$\begin{array}{r} 52 \\ + 36 \\ \hline 88 \end{array}$$

#### Activity 3 Operations: Addition and subtraction

- Demonstrate:** Work out the following using regrouping:

$$\begin{array}{r} 410 \\ - 13 \\ \hline 37 \end{array}$$

$$\begin{array}{r} 524 \\ + 38 \\ \hline 562 \end{array}$$

(Emphasize on how to regroup 5 tens to 4 tens and 10 ones and 2 tens to 1 tens and 4 ones)

- Have pupils work out the following using regrouping:

$$\begin{array}{r} 513 \\ - 27 \\ \hline 936 \end{array}$$

$$\begin{array}{r} 46 \\ + 16 \\ \hline 62 \end{array}$$

### Classwork

- Pupils to work out the activities on page 124.

### Conclusion

- Write:

$$\begin{array}{r} 432 \\ + 48 \\ \hline \end{array}$$

- Ask pupils to work out the statement.

### Homework

Write the numerals that come before and after

- \_\_\_ 110 \_\_\_
- \_\_\_ 183 \_\_\_
- \_\_\_ 145 \_\_\_
- \_\_\_ 199 \_\_\_
- \_\_\_ 140 \_\_\_
- \_\_\_ 101 \_\_\_

Add or subtract

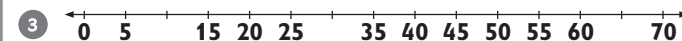
- $\begin{array}{r} 50 \\ - 12 \\ \hline \end{array}$
- $\begin{array}{r} 638 \\ + 238 \\ \hline \end{array}$
- $\begin{array}{r} 793 \\ - 437 \\ \hline \end{array}$
- $\begin{array}{r} 45 \\ + 27 \\ \hline \end{array}$



Write the numbers that come directly before and after.

- \_\_\_, 196, \_\_\_
- \_\_\_, 179, \_\_\_

Write the missing numbers.



Work out.

$$4 \quad 44 + 13 = \underline{\quad\quad} \quad 5 \quad 24 + 12 = \underline{\quad\quad}$$

$$6 \quad 36 + 22 = \underline{\quad\quad} \quad 7 \quad 36 + 20 = \underline{\quad\quad}$$

$$8 \quad \begin{array}{r} 50 \\ + 50 \\ \hline \end{array}$$

$$9 \quad \begin{array}{r} 94 \\ - 52 \\ \hline \end{array}$$

$$10 \quad \begin{array}{r} 100 \\ - 30 \\ \hline \end{array}$$

Week 23, Day 4:

Duration:

Roll:

Remarks:

## Introduction

- Let the pupils practice their basic facts by asking pupils the following facts:

$$6 + 7 = \underline{\quad}, \quad 13 - 4 = \underline{\quad}, \quad 19 - 5 = \underline{\quad},$$

$$16 + 4 = \underline{\quad}, \quad 12 - 7 = \underline{\quad}, \quad 12 + 8 = \underline{\quad}$$

## Development

### Activity 1 Operations: Number patterns

- Guide:** Have pupils write the numbers that come before and after the following numbers:

\_\_\_ 158 \_\_\_, \_\_\_ 140 \_\_\_,

\_\_\_ 199 \_\_\_

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Remind pupils about less than (<) and greater than (>) symbols using your elbows.
- Remind them that the arrow always points at the lesser number.
- Use the symbols to compare 67 and 76  
→ 67 < 76.
- Guide:** Have pupils use the symbols to compare 40 and 30;  
→ 40 \_\_\_ 30 (>)

### Activity 3 Operations: Addition and subtraction

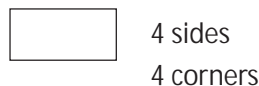
- Guide:** Have pupils work out the following on the board.

$$\begin{array}{r} 4 \ 6 \\ + 2 \ 2 \\ \hline 6 \ 8 \end{array} \quad \begin{array}{r} 6 \ 3 \ 5 \\ - 2 \ 1 \ 2 \\ \hline 4 \ 2 \ 3 \end{array}$$

### Activity 4 Geometry: Shapes

- Draw:** Draw a rectangle and use it to show sides and corners.

- Demonstrate:** Show the sides and the corners.



- Guide:** Have pupils repeat the same with a triangle.

## Classwork

- Pupils to work out the activities on page 125.

## Conclusion

- Have pupils count the number of sides and corners in a rectangle and a triangle.

## Homework

Write > or <

1. 14 \_\_\_ 41

2. 30 \_\_\_ 20

3. 64 \_\_\_ 90

4. 43 \_\_\_ 13

Add or subtract

5. 
$$\begin{array}{r} 2 \ 4 \\ + 1 \ 3 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 7 \ 3 \ 6 \\ + 1 \ 1 \ 3 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 5 \ 4 \\ - 1 \ 2 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 6 \ 4 \\ - 2 \ 0 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 6 \ 8 \ 9 \\ - 2 \ 5 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 9 \ 6 \\ - 2 \ 5 \\ \hline \end{array}$$

**Note:** Remember to give the weekly test!



Write the numbers that come directly before and after.

1. \_\_\_, 470, \_\_\_      2. \_\_\_, 199, \_\_\_

Write > or < inside the circle.

3. 72 ○ 75      4. 77 ○ 67

5. 78 ○ 80      6. 79 ○ 74

Work out.

7. 
$$\begin{array}{r} 67 \\ + 32 \\ \hline \end{array}$$
      8. 
$$\begin{array}{r} 35 \\ - 12 \\ \hline \end{array}$$
      9. 
$$\begin{array}{r} 967 \\ - 253 \\ \hline \end{array}$$
      10. 
$$\begin{array}{r} 475 \\ + 23 \\ \hline \end{array}$$

Write the number of sides and corners.



\_\_\_ sides

\_\_\_ corners



\_\_\_ sides

\_\_\_ corners

Week 23, Day 5:

Duration:

Roll:

Remarks:

## Introduction

- Count by fives from 100 to 200.
- Have pupils repeat this several times.

## Development

### Activity 1 Whole numbers: Comparing numbers

- Demonstrate:** Remind pupils about less than (<) and greater than (>) symbols using your elbows.
- Remind them that the arrow always points at the lesser number.
- Show the pupils how to use the symbols to compare 93 and 92 → 93 \_\_\_\_ 92 (>)
- Guide:** Have pupils use the symbols to compare 95 and 96 → 95 \_\_\_\_ 96 (<)

### Activity 2 Geometry: Shapes

- Draw:** Draw a triangle on the board.
- Demonstrate:** Use the triangle to identify the number of corners and sides.
- Guide:** Have pupils repeat the same activity with a square.

## Classwork

- Pupils to work out the activities on page 126.

## Conclusion


- Count back by 5s from 200 to 100.
- Have pupils repeat this several times.

## Homework

Write > or <

- 46 \_\_\_\_ 34
- 28 \_\_\_\_ 18
- 64 \_\_\_\_ 63
- 91 \_\_\_\_ 92

Write the number of sides and vertices


- 
- 
- 




Write > or < inside the circle.

- 74 ○ 76
- 78 ○ 69
- 77 ○ 80
- 70 ○ 71
- 70 ○ 67
- 80 ○ 79


Write the number of sides and corners.

- 


\_\_\_\_ sides

\_\_\_\_ corners
- 

\_\_\_\_ sides

\_\_\_\_ corners
- 

\_\_\_\_ sides

\_\_\_\_ corners
- 

\_\_\_\_ sides

\_\_\_\_ corners

Week 24, Day 1:

Duration:

Roll:

Remarks:

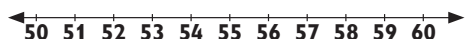
## Introduction

- Count by fives from 150 to 200.
- Have pupils count back by fives from 200 to 150.

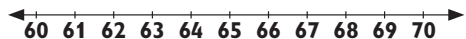
## Development

### Activity 1 Whole numbers: Comparing numbers

- Draw:** Draw a number line by ones from 50 to 60.



- Demonstrate:** Use the number line to order the numbers 53, 58, 60, 51 from least to greatest → (51, 53, 58, 60)
- Draw:** Draw a number line by ones from 60 to 70.



- Guide:** Have pupils use it to order the numbers 65, 68, 60, 70 from least to greatest → (60, 65, 68, 70)

### Activity 2 Operations: Division

- Demonstrate:** Have 12 sticks on the table and 2 pupils in front of the class.
- Explain to the class that you are going to share the sticks equally between the 2 pupils.
- Give each pupil one stick at a time until all the sticks are finished.
- Have each pupil count how many sticks they each have.
- Explain to pupils that when we share equally between two pupils, you have divided by two.
- Draw:** Write  $12 \div 2 = 6$
- Guide:** Draw 14 sticks on the board and have pupils divide them by 2 →  $14 \div 2 = 7$

### Activity 3 Operations: Addition

- Demonstrate:** Revise with pupils addition involving zero as →  $3 + 0 = 3$ ,  $0 + 5 = 5$
- Show to balance the statement below on the board:

$$44 + \underline{\quad} + 22 = 33 + 33 \quad (0)$$

$\underbrace{44}_{66}$ 
 $\underbrace{33}_{66}$

- Guide:** Work with pupils to balance  $24 + 33 = 17 + 0 + \underline{\quad}$  on the board. (40)

## Classwork

- Pupils to work out the activities on page 127.

## Conclusion

- Have 6 books and have 2 pupils each divide the books among themselves. Let each pupil say how many books he/she has.

## Homework

### Order from least to greatest

- 45, 36, 30, 54
- 76, 67, 50, 55
- 24, 38, 28, 60
- 46, 48, 41, 43

### Divide

- $8 \div 2 =$
- $10 \div 2 =$
- $4 \div 2 =$
- $12 \div 2 =$



## Order from least to greatest.

- 53, 62, 47, 58
- 63, 67, 62, 54

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## Divide.



- $6 \div 2 =$
- $8 \div 2 =$

## Balance to make equal.

- $47 + \underline{\quad} + 0 = 51 + 27$
- $36 + 40 = 40 + \underline{\quad}$
- $50 + 16 = \underline{\quad} + 45$

Week 24, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils use their hundreds chart to count by tens from 8 to 98 and back from 98 to 8.

## Development

### Activity 1 Operations: Number patterns

- Demonstrate:** Count by twos or tens and write the next numbers in the following patterns:  
100, 110, 120, \_\_, \_\_, \_\_ (130, 140, 150)  
144, 142, 140, \_\_, \_\_, \_\_ (138, 136, 134)
- Guide:** Have pupils count by twos or tens and write the next numbers in the following patterns:  
150, 140, 130, \_\_, \_\_, \_\_ (120, 110, 100)  
190, 192, 194, \_\_, \_\_, \_\_ (196, 198, 200)

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Show how to use the place value to order 46, 40, 35, 38 from least to greatest → (35, 38, 40, 46)
- Remind pupils to check the tens digit first then the ones.
- Guide:** Work with pupils to order 68, 43, 55, 60 from least to greatest using place value → (43, 55, 60, 68)

### Activity 3 Operations: Division

- Demonstrate:** Have 12 sticks on the table and 3 pupils in front of the class.
- Explain to the class that you are going to share the sticks equally among the 3 pupils.
- Give each pupil one stick at a time until all the sticks are finished.
- Have each pupil count how many sticks they each have.

- Explain to pupils that when we share equally between 3 pupils, you have divided by three.

**Draw:** Write  $12 \div 3 = 4$

- Guide:** Draw 15 sticks on the board and have pupils divide them by 3 →  $15 \div 3 = 5$

### Activity 4 Operations: Equivalence

- Guide:** Work with pupils to balance  
 $34 + 20 = \_\_\_ + 34$  on the board.

## Classwork

- Pupils to work out the activities on page 128.

## Conclusion

- Have pupils work out the following  
 $9 \div 3 =$        $15 \div 3 =$

## Homework

### Write the next numbers

- 180, 170, 160, \_\_, \_\_, \_\_
- 140, 150, 160, \_\_, \_\_, \_\_
- 180, 182, 184, \_\_, \_\_, \_\_
- 166, 164, 162, \_\_, \_\_, \_\_

### Divide

- $6 \div 3 =$
- $9 \div 3 =$
- $18 \div 3 =$
- $12 \div 3 =$



## Write the next numbers.

1 180, 182, 184, \_\_, \_\_, \_\_

2 200, 190, 180, \_\_, \_\_, \_\_

## Order from least to greatest.

3 

|    |
|----|
| 63 |
|----|

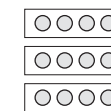
|    |
|----|
| 59 |
|----|

|    |
|----|
| 66 |
|----|

|    |
|----|
| 51 |
|----|

\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Divide.



4  $12 \div 3 =$       5  $9 \div 3 =$

## Balance to make equal.

6  $42 + 0 + \_\_\_ = 24 + 51$

7  $62 + 15 = 15 + \_\_\_$

Week 24, Day 3:

Duration:

Roll:

Remarks:



## Introduction

- Have pupils use their hundreds chart to count by tens from 7 to 97 and back from 97 to 7.

## Development

### Activity 1 Operations: Division

- Demonstrate:** Have 10 sticks on the table and 2 pupils in front of the class.
- Explain to the class that you are going to share the sticks equally between the 2 pupils.
- Give each pupil one stick at a time until all the sticks are finished.
- Have each pupil count how many sticks they each have.
- Explain to pupils that when we share equally between two pupils, you have divided by two.
- Draw:** Write  $10 \div 2 = 5$
- Guide:** Draw 18 sticks on the board and have pupils divide them by 3  $\rightarrow 18 \div 3 = 6$

### Activity 2 Patterns

- Demonstrate:** Show how to write the next letters in the following pattern:  
CABACABA \_\_\_\_ (CABA)
- Guide:** Have pupils repeat the activity with ZBZBZB \_\_\_\_, \_\_\_\_, \_\_\_\_ (ZBZ)

### Activity 3 Operations: Subtraction

- Demonstrate:** Revise with pupils how to subtract using tens and ones by subtracting the ones first and then tens.

$$\begin{aligned} 58 - 25 &= (5 - 2) \text{ tens and } (8 - 5) \text{ ones} \\ &= 3 \text{ tens and } 3 \text{ ones} \\ &= 33 \end{aligned}$$

- Guide:** Have pupils repeat the activity with  $96 - 44 =$  \_\_\_\_

$$\begin{aligned} 96 - 44 &= (9 - 4) \text{ tens and } (6 - 4) \text{ ones} \\ &= 5 \text{ tens and } 2 \text{ ones} \\ &= 52 \end{aligned}$$

## Classwork

- Pupils to work out the activities on page 129.

## Conclusion

- Have pupils write any letter pattern in their book, then their neighbour to write the next letters in the pattern.

## Homework

### Write the next letters

- ABDABDABD \_\_\_\_, \_\_\_\_, \_\_\_\_
- ACACACAC, \_\_\_\_, \_\_\_\_, \_\_\_\_
- FABAFABA, \_\_\_\_, \_\_\_\_, \_\_\_\_
- KBLKBLKBL, \_\_\_\_, \_\_\_\_, \_\_\_\_

### Subtract

- $6 \div 2 =$
- $6 \div 3 =$
- $18 \div 2 =$
- $18 \div 3 =$



## Write the next numbers.

- 200, 198, 196, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 186, 188, 190, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 42, 52, 62, \_\_\_\_, \_\_\_\_, \_\_\_\_
- 99, 89, 79, \_\_\_\_, \_\_\_\_, \_\_\_\_

## Write the next letters in the pattern.

- ABCCABCCABCC \_\_\_\_
- ABACABACABAC \_\_\_\_

## Work out.

- $66 - 13 =$
- $68 - 47 =$
- $46 - 24 =$
- $97 - 44 =$

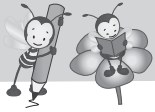
Week 24, Day 4:

Duration:

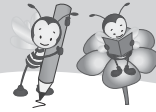
Roll:

Remarks:





## Speed Test 6



## Check-Up Quiz, Weeks 21–24

Work out:

$2 + 15 = \underline{\quad}$

$19 - 4 = \underline{\quad}$

$13 + 2 = \underline{\quad}$

$17 - 7 = \underline{\quad}$

$12 + 7 = \underline{\quad}$

$16 - 3 = \underline{\quad}$

$8 + 10 = \underline{\quad}$

$19 - 9 = \underline{\quad}$

$13 + 5 = \underline{\quad}$

$18 - 3 = \underline{\quad}$

$12 + 2 = \underline{\quad}$

$13 - 1 = \underline{\quad}$

$19 - 6 = \underline{\quad}$

$3 + 15 = \underline{\quad}$

$16 - 2 = \underline{\quad}$

$14 + 4 = \underline{\quad}$

$19 - 12 = \underline{\quad}$

$3 + 12 = \underline{\quad}$

$18 - 14 = \underline{\quad}$

$11 + 6 = \underline{\quad}$

$15 - 12 = \underline{\quad}$

$5 + 14 = \underline{\quad}$

$18 - 10 = \underline{\quad}$

$11 + 8 = \underline{\quad}$

$14 + 3 = \underline{\quad}$

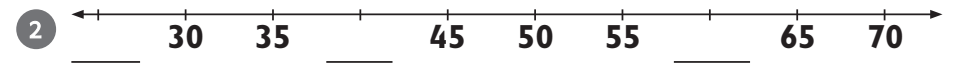
$16 - 11 = \underline{\quad}$

$11 + 2 = \underline{\quad}$

Write the next numbers.

1 196, 197, 198,           ,           ,           

Write the missing numbers.



Work out.

3  $68 - 33 = \underline{\quad}$       4  $43 + 24 = \underline{\quad}$

Work out.

- 5 Kibitok has a book which has 75 pages. He has read 53 pages. How many pages is he left with to read?  
           pages

Write the total value of the coins.



Write the number of sides and corners.

- 8             sides            corners

## Introduction

- Have pupils count by ones from 171 to 200.

## Development

### Activity 1 Operations: Number patterns

- Draw:** Write on the board:  
35, 25, \_\_, \_\_,  
35, 30, \_\_, \_\_,
- Demonstrate:** Count by tens or fives and write the next number.  
35, 25, 15, 5  
35, 30, 25, 20
- Draw:** Write on the board:  
7, 17, \_\_, \_\_  
120, 115, \_\_, \_\_
- Guide:** Have pupils count by tens or fives and write the next number.  
7, 17, 27, 37,  
120, 115, 110, 105

### Activity 2 Operations: Addition and subtraction

- Draw:** Write on the board; 'Class 1 has 46 chairs. Class 2 has 42 chairs. How many chairs are in class 1 and 2?'
- Demonstrate:** Show how to work out the word problem on the board by writing a number sentence:  
→  $46 + 42 = \underline{88 \text{ chairs}}$
- Draw:** Write on the board; 'The shopkeeper bought 68 sweets. He sold 33 sweets. How many sweets did he have left?'
- Guide:** Have pupils work out the word problem by writing a number sentence and the answer.  
→  $68 - 33 = \underline{35 \text{ sweets}}$

## Classwork

- Pupils to work out the activities on page 133.

## Conclusion

- Count by tens from 7 to 197.
- Have pupils repeat this several times.

## Homework

### Write the next numbers

- 140, 145 \_\_, \_\_
- 180, 175, \_\_, \_\_
- 5, 15, \_\_, \_\_
- 166, 156, \_\_, \_\_
- 110, 115 \_\_, \_\_
- 125, 135, \_\_, \_\_
- 85, 90, \_\_, \_\_
- 200, 195, \_\_, \_\_



## Write the next numbers.

- 195, 190, 185, \_\_, \_\_, \_\_, \_\_
- 57, 67, 77, \_\_, \_\_, \_\_, \_\_
- 180, 185, 190, \_\_, \_\_, \_\_, \_\_
- 84, 74, 64, \_\_, \_\_, \_\_, \_\_

## Work out.

- Mukondi scored 28 points in one game and 51 points in another game. How many points did he score in all?  
\_\_\_\_\_ points
- Sankale had 75 bags of maize. He sold 40 bags. How many bags was he left with?  
\_\_\_\_\_ bags
- The teacher had 63 books. She gave out 30 books. How many books was she left with?  
\_\_\_\_\_ books
- Class 2 Blue has 48 pupils. Class 2 Red has 50 pupils. How many pupils are in both classes?  
\_\_\_\_\_ pupils

|                 |           |       |
|-----------------|-----------|-------|
| Week 25, Day 1: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |

## Introduction

- Pupils to count by tens from 192 to 2.

## Development

### Activity 1 Operations: Division

- Demonstrate:** Have 12 sticks on the table and 4 pupils in front of the class.
- Explain to the class that you are going to share the sticks equally among the 4 pupils.
- Give each pupil one stick at a time until all the sticks are finished.
- Have each pupil count how many sticks they each have.
- Explain to pupils that when we share equally, you have divided by four.
- Draw:** Write  $12 \div 4 = 3$
- Guide:** Draw 20 sticks on the board and have pupils divide them by 4  $\rightarrow 20 \div 4 = 5$

### Activity 2 Whole Numbers: Comparing numbers

- Demonstrate:** Revise with the pupils about less than (<) and greater than (>) symbols using your elbows.
- Remind them that the arrow always points at the lesser number.
- Demonstrate:** Show how to use the symbols to compare 90 and 80  $\rightarrow 90 > 80$ .
- Guide:** Have pupils use the symbols to compare 76 and 77  $\rightarrow 76 < 77$

### Activity 3 Measurement: Mass

- Draw:** Write "kilogram".

- Demonstrate:** Explain to the pupils that we can use a kilogram to know how heavy something is. Heavier objects have more kilograms than lighter objects.
- Demonstrate:** Draw a simple scale with the pointer on 5 and an object on top of it. Demonstrate how to read the scale  $\rightarrow$  5 kilograms.
- Draw another scale with the pointer on 12 and an object on top.
- Guide:** Have pupils read the scale and write the mass  $\rightarrow$  12 kilograms

## Classwork

- Pupils to work out the activities on page 134.

## Conclusion

- Write  $6 \div 2$  on the board.
- Have pupils solve the problem on the board.

## Homework

### Write the next numerals

- 46, 56, 66, \_\_, \_\_, \_\_
- 85, 75, 65, \_\_, \_\_, \_\_
- 102, 112, 122, \_\_, \_\_, \_\_
- 133, 123, 113, \_\_, \_\_, \_\_

### Divide

- $8 \div 2 =$
- $16 \div 2 =$
- $12 \div 4 =$
- $15 \div 3 =$
- $9 \div 3 =$
- $20 \div 4 =$



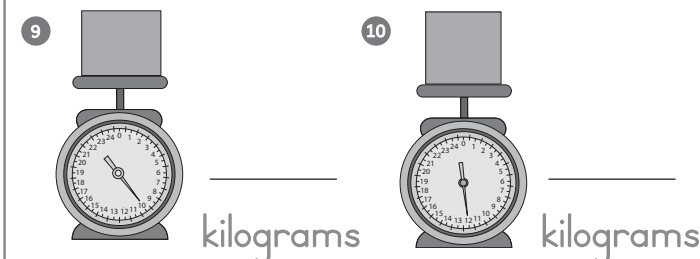
## Work out.

- $4 \times 3 =$  \_\_\_\_
- $1 \times 5 =$  \_\_\_\_
- $8 \div 2 =$  \_\_\_\_
- $6 \div 3 =$  \_\_\_\_

## Write > or < inside the circle.

- 84 ○ 78
- 90 ○ 86
- 81 ○ 85
- 87 ○ 89

## Write the mass in kilograms.



|                 |           |       |
|-----------------|-----------|-------|
| Week 25, Day 2: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |

### Introduction

- Draw a number line by fives from 0 to 40 but missing 5, 15, 20.
- Work with pupils to find the missing numbers on the board.

### Development

#### Activity 1 Whole numbers: Number patterns

- **Draw:** Write on the board.  
187, 177, 167, \_\_\_\_, \_\_\_\_, \_\_\_\_
- **Demonstrate:** Count by tens and write the next number in the following pattern:  
187, 177, 167, 157, 147, 137
- **Draw:** Write on the board.  
198, 178, 168, \_\_\_\_, \_\_\_\_, \_\_\_\_
- **Guide:** Have pupils count by tens and write the next number in the pattern:  
198, 178, 168, 158, 148, 138

#### Activity 2 Patterns

- **Draw:** Write the letters K, Z, P, D, M, B, V, C, A, N on the board.
- **Guide:** Ask the pupils to give positions in order, i.e. K, Z, P, \_\_\_\_, 1st, 2nd, 3rd, \_\_\_\_.
- Select the letters randomly and ask pupils to give their positions.

#### Activity 3 Whole numbers: Comparing numbers

- **Draw:** Write < and > symbols on the board.
- **Demonstrate:** Revise with the pupils how to identify the less than (<) and greater than (>) symbols and use them to compare 64 → 54 (>).
- **Guide:** Have pupils use the symbols to compare 48 and 58 → 48 < 58

#### Activity 4 Measurement: Mass

- **Draw:** Draw a simple scale with an object and the pointer on 15 kgs.
- **Demonstrate:** Show how to read the scale  
→ 15 kilograms.
- **Draw:** Draw another scale with an object and the pointer on 6.
- **Guide:** Have pupils read the scale and write the mass → 6 kilograms.

### Classwork

- Pupils to work out the activities on page 135.

### Conclusion

- Draw a number line by fives from 0 to 60 but missing 10, 25, 30, 45.
- Have pupils write the missing numerals in their books.

### Homework

#### Write the position of the underlined letters.

- A B C D E F G H I J
1. B \_\_\_\_ 2. E \_\_\_\_ 3. F \_\_\_\_
4. H \_\_\_\_ 5. J \_\_\_\_

#### Write the next numbers.

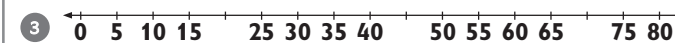
6. 182, 172, 162, \_\_\_\_, \_\_\_\_, \_\_\_\_
7. 132, 142, 152, \_\_\_\_, \_\_\_\_, \_\_\_\_
8. 98, 108, 118, \_\_\_\_, \_\_\_\_, \_\_\_\_
9. 146, 136, 126, \_\_\_\_, \_\_\_\_, \_\_\_\_



#### Write the next numbers.

1. 199, 189, 179, \_\_\_\_, \_\_\_\_, \_\_\_\_
2. 142, 152, 162, \_\_\_\_, \_\_\_\_, \_\_\_\_

#### Write the missing numbers.



#### Write the position of the underlined letters.

4. ABBC 5. AABCC

#### Write > or < inside the circle.

6. 84 ○ 86 7. 83 ○ 81

#### Write the mass in kilograms.



Week 25, Day 3:

Duration:

Roll:

Remarks:

## Introduction

- Revise with the pupils how to work out additional of 2-digit numbers by adding the tens and ones separately.  
 $46 + 33 = \underline{\quad}$        $24 + 25 = \underline{\quad}$   
 $42 + 36 = \underline{\quad}$

## Development

## Activity 1 Operations: Number patterns

- **Draw:** Draw a number line by tens from 10 to 100 but missing 40, 60, 70.
- **Guide:** Ask the pupils to count by tens and write the missing numbers.
- **Draw:** Draw a number line by fives from 10 to 60 but missing 25, 35, 40.
- **Guide:** Have pupils count by fives and write the missing numbers.

## Activity 2 Patterns

- **Draw:** Write the following on the board:  
XXYZZXXYZZXXYZZ
- **Demonstrate:** Use the pattern to demonstrate how to identify the rule of the pattern and write the position of the underlined letter.  
XXYZZXYZZXXYZZ      7th      Rule: XXYZZ
- Remind pupils that the rule is the group of letters that is repeated.
- **Guide:** Work with pupils repeat the activity with the following pattern.  
KJLJKJLJKJLJKJL      9th      Rule: KJL

### Activity 3 Operations: Equivalence

- **Draw:** Write  $36 + \underline{\quad} = 25 + 43$
- **Demonstrate:** Show how to balance the following statement on the board:

$$\begin{array}{r} 36 + \underline{32} = 25 + 43 \\ \underbrace{\quad\quad}_{68} \qquad \underbrace{\quad\quad}_{68} \end{array}$$

- Guide:** Work with the pupils to balance the  $20 + 35 = 14 + \underline{\quad}$ .

$$\begin{array}{r} 20 + 35 = 14 + \underline{41} \\ \underbrace{\quad\quad}_{55} \quad \underbrace{\quad\quad}_{55} \end{array}$$

## Classwork

- Pupils to work out the activities on page 136.

## Conclusion

- Have pupils write for their neighbour a letter pattern and ask them to circle the rule of the pattern.

## Homework

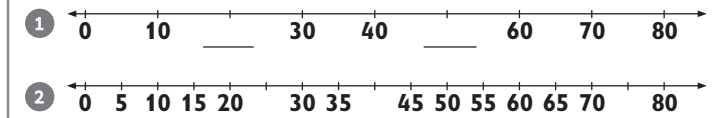
**Add:**

1.  $34 + 23 = \underline{\hspace{2cm}}$
2.  $60 + 25 = \underline{\hspace{2cm}}$
3.  $42 + 24 = \underline{\hspace{2cm}}$
4.  $60 + 30 = \underline{\hspace{2cm}}$
5.  $46 + 52 = \underline{\hspace{2cm}}$
6.  $25 + 20 = \underline{\hspace{2cm}}$

Balance to make equal.

7.  $28 + \underline{\quad} = 40 + 19$
8.  $30 + 11 = \underline{\quad} + 20$
9.  $46 + 42 = \underline{\quad} + 34$
9.  $\underline{\quad} + 23 = 35 + 20$

**Write the missing numbers.**



**Work out.**

3  $20 \div 4 = \underline{\quad}$       4  $18 \div 3 = \underline{\quad}$

**Circle the rule of the pattern. Write the position of the underlined letters.**

5 ABCCDABCCDABCCD ———

**Balance to make equal.**

6  $42 + \underline{\quad} = 63 + 24$

7  $32 + \underline{\quad} = 41 + 47$

8  $51 + 33 = \underline{\quad} + 20$



## Introduction

- Revise with the pupils how to balance addition statements, e.g.  
 $23 + \underline{\quad} = 11 + 23$        $60 + 20 = \underline{\quad} + 60$ .
- Remind pupils that the order of numbers does not matter in addition.

## Development

### Activity 1 Operations: Multiplication

- Demonstrate:** Review how to multiply using repeated addition as shown below:  
 $3 + 3 + 3 = 3 \times 3 = 9$   
 $6 + 6 + 6 + 6 = 6 \times 4 = 24$
- Guide:** Work with pupils to work out the following using repeated addition:  
 $4 \times 6 = \underline{\quad}$        $5 \times 4 = \underline{\quad}$

### Activity 2 Operations: Equivalence

- Draw:**  $54 + \underline{\quad} = 42 + 36$
- Demonstrate:** Balance the statement explaining to the pupils that both sides must be the same.  
 $54 + \underline{24} = 42 + 36$   
 $\begin{array}{cc} 78 & 78 \end{array}$
- Guide:** Work with the pupils to balance  $25 + 23 = \underline{\quad} + 40$  (8)

### Activity 3 Operations: Addition

- Write the following word problem 'Mike picked 12 stones yesterday and 20 stones today. How many stones has he picked altogether?'
- Demonstrate:** Show the pupils how to write the number sentence and solve the problem.  
 $12 + 20 = 32$  stones

- Draw:** Write on the board. John has 10 sweets. Jane has 15 sweets. How many sweets do they have altogether?
- Guide:** Work with pupils to write a number sentence and solve.  $10 + 15 = 25$  sweets.

### Activity 4

- Demonstrate:** Display Ksh 20, Ksh 10, Ksh 5, Ksh 1 coins and use them to demonstrate how to write the total amount  $\rightarrow 20 + 10 + 5 + 1 = \underline{\text{Ksh } 36}$
- Guide:** Have pupils repeat the activity with Ksh 10, 5sh, 1sh coins  $\rightarrow 10 + 5 + 1 = \underline{\text{Ksh } 16}$

## Classwork

- Pupils to work out the activities on page 137.

## Conclusion

- Write  $3 \times 2 = \underline{\quad}$ . Ask pupils to work out to find the answer.

## Homework

### Multiply:

- $7 \times 2 = \underline{\quad}$
- $6 \times 3 = \underline{\quad}$
- $5 \times 5 = \underline{\quad}$
- $4 \times 4 = \underline{\quad}$

### Balance to make equal

- $\underline{\quad} + 24 = 24 + 30$
- $16 + 11 = \underline{\quad} + 16$
- $43 + \underline{\quad} = 34 + 25$
- $18 + 21 = 11 + \underline{\quad}$

**Note:** Remember to give the weekly test!



## Work out.

- $4 \times 4 = \underline{\quad}$
- $2 \times 5 = \underline{\quad}$

## Balance to make equal.

- $38 + \underline{\quad} = 47 + 42$
- $\underline{\quad} + 44 = 71 + 16$
- $24 + 62 = \underline{\quad} + 33$

## Work out.

- There are 44 boys and 42 girls, at the game park. How many children are at the game park?  
 $\underline{\quad}$  children
- Moraa sold 54 fish today. She sold 68 fish yesterday. How many more fish did she sell yesterday than today?  
 $\underline{\quad}$  fish

## Write the total amount.



$\underline{\hspace{2cm}}$        $\underline{\hspace{2cm}}$

|                 |           |       |
|-----------------|-----------|-------|
| Week 25, Day 5: | Duration: | Roll: |
| <hr/>           | <hr/>     | <hr/> |
| Remarks: <hr/>  |           |       |
| <hr/>           |           |       |

## Introduction

- Have the pupils count by fives from 100 to 200 several times.

## Development

### Activity 1 Operations: Addition and subtraction

- Draw:** Write the following word problem. 'Atieno sold 15 shirts on Monday and 13 shirts on Tuesday. How many shirts did she sell altogether?'
  - $15 + 13 = 28$  shirts
- Demonstrate:** Show how to write a number sentence and solve the problem.
  - $15 + 13 = 28$  shirts
- Draw:** Write the following word problem. 'A school had 50 desks. 20 desks got broken. How many desks were left?'
  - $50 - 20 = 30$  desks
- Guide:** Work with pupils to write a number sentence and solve the problem.
  - $50 - 20 = 30$  desks

### Activity 2 Measurement: Money

- Demonstrate:** Display Ksh 10, Ksh 5, Ksh 1 coins and use them to demonstrate how to work out the total amount →  $10 + 5 + 1 = \text{Ksh } 16$
- Guide:** Have pupils repeat the activity with Ksh 5, Ksh 1, Ksh 1, Ksh 1 coins
  - $5 + 1 + 1 + 1 + 1 = \text{Ksh } 9$

## Classwork

- Pupils to work out the activities on page 138 .

## Conclusion

- Display Ksh 10, Ksh 10, Ksh 5, Ksh 1, Ksh 1 coins and have pupils work out the total amount in their exercise books.
  - $10 + 10 + 5 + 1 + 1 = \text{Ksh } 27$

## Homework

























- Write the value of all the Kenyan coins that you have seen.
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
- Write the value of all the Kenyan notes that you have seen.
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_



## Work out.

- Nasiepei has 42 goats and 36 sheep. How many animals does Nasiepei have?
  - \_\_\_\_\_ animals
- Atieno has read 64 pages of a book. The book has 86 pages. How many pages does he have left to read?
  - \_\_\_\_\_ pages
- A netball team scored 36 points in the first game and 51 points in the second game. How many points did the team score in all?
  - \_\_\_\_\_ points
- Nelima spent 85 minutes studying in total. She spent 40 minutes on her maths homework. How many minutes did Nelima spend studying other subjects?
  - \_\_\_\_\_ minutes

## Write the total amount of money.

|       |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 5     |  |  |  |  | 6                                                                                   |  |  |                                                                                     |                                                                                     |                                                                                     |
| _____ |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| 7     |  |  |  |  |  | 8                                                                                   |  |  |  |  |
| _____ |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| 9     |  |  |  |  |  | 10                                                                                  |  |  |  |  |
| _____ |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Week 26, Day 1:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils count by tens from 84 to 194.
- Have pupils count back by 10s from 194 to 84.

## Development

### Activity 1 Whole numbers: Comparing numbers

- **Draw:** Write 64, 38, 39, 65 on the board.
- **Demonstrate:** Use place value to order the following numbers from least to greatest:  
64, 38, 39, 65 → 38, 39, 64, 65
- Remind pupils that when using place value, we check at the tens first then the ones.
- **Draw:** Write 77, 88, 80.
- **Guide:** Have pupils order the numbers 74, 88, 72, 80 → 72, 74, 80, 88

### Activity 2 Whole numbers: Comparing numbers

- **Demonstrate:** Revise with the pupils how to identify the greater than (>) and less than (<) symbols using your elbows.
- Remind them that the arrow always points at the lesser numbers.
- Demonstrate how to use the symbols to compare 47 and 46 → 47—46 (>)
- **Guide:** Have pupils use the symbols to compare 38 and 39 using greater than or less than symbol.  
38—39 (<)

## Classwork

- Pupils to work out the activities on page 139.

## Conclusion

- Have pupils use the greater than or less than symbols to compare the following numbers:  
16\_\_45, 98\_\_99, 50\_\_70.

## Homework

### Order from least to greatest.

1. 53, 25, 21, 58 \_\_\_\_\_
2. 74, 90, 78, 80 \_\_\_\_\_
3. 45, 46, 40, 49 \_\_\_\_\_
4. 27, 57, 37, 47 \_\_\_\_\_

### Write > or <

5. 30 \_\_\_\_ 50
6. 27 \_\_\_\_ 37
7. 40 \_\_\_\_ 20
8. 64 \_\_\_\_ 44



### Order from least to greatest.

1. 74 63 80
2. 74 69 75

\_\_\_\_, \_\_\_\_ , \_\_\_\_

\_\_\_\_, \_\_\_\_ , \_\_\_\_

3. 20 40 10
4. 75 25 43

\_\_\_\_, \_\_\_\_ , \_\_\_\_

\_\_\_\_, \_\_\_\_ , \_\_\_\_

### Write > or < inside the circle.

5. 94 ○ 96
6. 95 ○ 100
7. 99 ○ 93
8. 91 ○ 89
9. 95 ○ 92
10. 73 ○ 97

Week 26, Day 2:

Duration:

Roll:

Remarks:

## Introduction

- Have pupils use place value to order the following numbers from least to greatest:  
42, 49, 45, 40

## Development

## Activity 1 Operations: Subtraction

- **Draw:** Write  $87 - 45$  on the board.
- **Demonstrate:** Remind pupils that they can subtract using tens and ones. Subtract the ones and the tens separately.
- **Guide:** Have pupils subtract  $64 - 22$  using tens and ones
 

$\rightarrow 64 - 22 = (6 - 2) \text{ tens and } (4 - 2) \text{ ones}$   
 $\quad \quad \quad = 4 \text{ tens and } 2 \text{ ones}$   
 $\quad \quad \quad = 42$

### Activity 2 Whole numbers: Comparing numbers

- **Demonstrate:** Remind pupils about the less than (<) and greater than symbols using your elbows.
- Remind them that the arrow always points at the lesser number.
- **Guide:** Have them use the symbols to compare  
 $64 \underline{\hspace{0.5cm}} 46$                       ( $64 > 46$ )

### Activity 3 Operations: Equivalence

- **Draw:** Write  $34 + \underline{\quad} = 63 + 23$  on the board.
- **Demonstrate:** Show how to balance the statement. Explain that both sides of the equation must balance.

$$\begin{array}{r} 35 + \underline{51} = 63 + 23 \\ \underbrace{\quad\quad}_{86} \quad \underbrace{\quad\quad}_{86} \end{array}$$

- Guide:** Have the pupils balance  $\underline{\quad} + 25 = 40 + 19$   
(34)

## Activity 4 Measurement: Equivalence

- **Demonstrate:** Display Ksh 20, Ksh 10, Ksh 5, Ksh 1, Ksh 1 coins and use them to demonstrate how to work out the total amount  
→  $20 + 10 + 5 + 1 + 1 = \underline{\text{Ksh } 37}$
- Have the pupils repeat with Ksh 20, Ksh 5, Ksh 1, Ksh 1 coins →  $20 + 5 + 1 + 1 = \underline{\text{Ksh } 27}$

## Classwork

- Pupils to work out the activities on page 140.

## Conclusion

- Display Ksh 20, Ksh 10, Ksh 5, Ksh 1 coins and have pupils work out the total amount  
→  $20 + 10 + 5 + 1 = \text{Ksh } 36$

## Homework

## Subtract

1.  $35 - 12 = \underline{\quad}$       2.  $58 - 26 = \underline{\quad}$   
3.  $63 - 21 = \underline{\quad}$       4.  $90 - 50 = \underline{\quad}$   
5.  $47 - 24 = \underline{\quad}$       6.  $95 - 32 = \underline{\quad}$

Balance to make equal

7.  $20 + \underline{\quad} = 50 + 40$       8.  $64 + 32 = \underline{\quad} + 30$   
9.  $\underline{\quad} + 33 = 46 + 13$



**Order from least to greatest.**

- 1 65 76 61 72, \_\_, \_\_, \_\_, \_\_

**Work out.**

- 2  $77 - 45 = \underline{\quad}$       3  $76 - 51 = \underline{\quad}$

**Write  $>$  or  $<$  inside the circle.**

- 4 94 ○ 96      5 97 ○ 92

**Balance to make equal.**

- 6  $61 + \quad = 54 + 43$

Use the coins below for numbers 7 and 8.



- 7 Write the total amount of money. \_\_\_\_\_
- 8 Circle the coin with the greatest value. Draw a line below the coin with the least value.

**Introduction**

- Have pupils work out the following word problem using real objects. Yusuf has 12 sticks, Sara has 15 sticks. How many sticks do they have altogether?

**Development**

**Activity 1 Operations: Subtraction**

- Draw:** Write  $34 - 13 = \underline{\quad}$  on the board.
- Demonstrate:** Remind pupils that they can subtract using tens and ones by subtracting the tens and ones separately.
- Work out  $34 - 13$  on the board using this method.

$$\begin{array}{r} \text{T} | \text{O} \\ 3 | 4 - 1 | 3 \\ \hline \end{array} = 21$$

Tens – Tens =  $3 - 1 = 2$     Ones – Ones =  $4 - 3 = 1$

- Draw:** Write  $58 - 36 = \underline{\quad}$  on the board.
- Guide:** Have pupils solve the problem.

$$\begin{array}{r} \text{T} | \text{O} \\ 5 | 8 - 3 | 6 \\ \hline \end{array} = 22$$

Tens – Tens =  $5 - 3 = 2$     Ones – Ones =  $8 - 6 = 2$

**Activity 2 Operations: Subtraction**

- Draw:** Write the following: ‘Onyango had 18 sticks, he gave 7 sticks to Keter. How many sticks did he have left?’  
 $18 - 7 = 11$  sticks
- Demonstrate:** Show how to work out the word problem using real objects and writing the number sentence.
- Draw:** Write ‘Maina has 21 books. He gives his friend 9 books. How many books does he have now?’
- Guide:** Work out the problem with the pupils and let them write a number sentence.

**Activity 3 Measurement: Money**

- Demonstrate:** Display Ksh 20, Ksh 10, Ksh 1, Ksh 1, Ksh 1 coins and use them to demonstrate how to work out the total amount  
 $\rightarrow 20 + 10 + 1 + 1 + 1 = \underline{\text{Ksh 33}}$
- Guide:** Have pupils repeat with Ksh 20, Ksh 5, Ksh 1, Ksh 1  $\rightarrow 20 + 5 + 1 + 1 = \underline{\text{Ksh 27}}$

**Activity 4**

- Draw:** Draw a circle and an oval on the board and label them.
- Guide:** Have pupils draw them in the air as they say their names.

**Classwork**

- Pupils to work out the activities on page 141.

**Conclusion**

- Have pupils count by tens from 68 to 198.
- Have pupils count back by tens from 194 to 44.

**Homework**

**Subtract**

- $40 - 20 = \underline{\quad}$
- $64 - 34 = \underline{\quad}$
- $86 - 64 = \underline{\quad}$
- $93 - 52 = \underline{\quad}$
- $78 - 65 = \underline{\quad}$
- $46 - 25 = \underline{\quad}$

**Balance to make equal**

- $20 + \underline{\quad} = 35 + 40$
- $\underline{\quad} + 16 = 23 + 23$
- $26 + 32 = \underline{\quad} + 25$



**Work out.**

1  $76 - 26 = \underline{\quad}$

**Balance to make equal.**

2  $\underline{\quad} + 46 = 26 + 72$

**Work out.**

- Njoka had 96 bags of rice. He sold 42 bags. How many bags of rice are left?  
 $\underline{\quad}$  bags
- Boke has 32 shillings. Her mother gives her 65 more shillings. How many shillings does Boke have now?  
 $\underline{\quad}$  shillings

**Use the coins below for numbers 5 and 6.**



- Write the total amount of money.  $\underline{\hspace{2cm}}$
- Circle the coin with the greatest value. Draw a line below the coin with the least value.

**Write “oval” or “circle”.**

-   $\underline{\hspace{2cm}}$
-   $\underline{\hspace{2cm}}$

|                 |           |       |
|-----------------|-----------|-------|
| Week 26, Day 4: | Duration: | Roll: |
| <hr/>           | <hr/>     | <hr/> |
| Remarks: <hr/>  |           |       |

## Introduction

- Write a word problem on the board and work it out by writing a number sentence.
- Draw a square and show the sides and the corners of the shape.

## Development

### Activity 1 Operations: Addition and subtraction

- Draw:** Write the following word problem on the board.  
'There are 12 bottles in the box. Linda puts 8 more bottles. How many bottles are now in the box?'  
→  $12 + 8 = \underline{20 \text{ bottles}}$
- Demonstrate:** Work out the problem by writing a number sentence.
- Draw:** Write the following word problem on the board. 'Teacher John has 64 pencils. He gives 32 pencils to the pupils. How many pencils does he have left?'  
→  $64 - 32 = \underline{32 \text{ pencils}}$

### Activity 2 Geometry: Straight and curved lines

- Draw:** Draw several straight lines on the board and below them write straight lines as shown:



straight lines

- Draw:** Draw several curved lines on the board and below them write curved lines:



curved lines

- Guide:** Have pupils identify and draw shapes with straight lines. (square, rectangle, triangle) and shapes with curved lines (circle, oval).

## Classwork

- Pupils to work out the activities on page 142.

## Conclusion

- Have different pupils draw straight and curved lines on the board.

## Homework

Write the number of sides and number of corners.

-  = \_\_\_\_
-  = \_\_\_\_
-  = \_\_\_\_
-  = \_\_\_\_
-  = \_\_\_\_
-  = \_\_\_\_

Write 'straight line' or 'curved line'

-  \_\_\_\_\_
-  \_\_\_\_\_





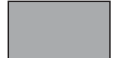

Note: Remember to give the weekly test!



## Work out.

- A forest has 96 trees. 32 more trees have been planted. How many trees are there in the forest?  
\_\_\_\_\_ trees
- Jeplimo listened to a radio lesson for 40 minutes on Monday and for 45 minutes on Tuesday. For how many minutes did she listen to the radio lessons in all?  
\_\_\_\_\_ minutes
- Teacher David has 53 counters. He gives away 9 counters. How many counters is he left with?  
\_\_\_\_\_ counters

Write the number of corners each shape has.  
Draw a line below the shapes with curves.

-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_
-  \_\_\_\_\_

|                 |           |       |
|-----------------|-----------|-------|
| Week 26, Day 5: | Duration: | Roll: |
| _____           | _____     | _____ |
| Remarks: _____  |           |       |
| _____           |           |       |

## Week 27, Day 1

### Introduction

- Work with pupils to count by ones from 200 to 220.

### Development

#### Activity 1 Measurement: Time

- Draw:** Write the days of the week on the board.
- Guide:** Say them and have pupils repeat them several times.
- Have the pupils copy them in their books.

#### Activity 2 Whole numbers: Reading and writing numbers

- Guide:** Write the following numbers on the board and have pupils identify them:  
245, 281, 268, 272, 299, 210
- Guide:** Say the following numbers and have pupils write them on the board:  
210, 255, 273, 290

#### Activity 3 Measurement: Money

- Demonstrate:** Display Ksh 10, Ksh 1, Ksh 1, Ksh 1 coins and use them to demonstrate how to work out the total amount  
→  $10 + 1 + 1 + 1 = \text{Ksh } 13$
- Guide:** Have the pupils repeat the activity with Ksh 20, Ksh 5, Ksh 1, Ksh 1  
→  $20 + 5 + 1 + 1 = \text{Ksh } 27$

### Classwork

- Pupils to work out the activities on page 143.

### Conclusion

- Have pupils count by ones from 200 to 220.

### Homework

- Write the numbers 200 to 210.

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- Write the numbers 210 to 220.

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- Write the days of the week.

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## Week 27, Day 1

### 1 Copy the days of the week.

Sunday \_\_\_\_\_ Wednesday \_\_\_\_\_  
Monday \_\_\_\_\_ Thursday \_\_\_\_\_  
Tuesday \_\_\_\_\_ Friday \_\_\_\_\_  
Saturday \_\_\_\_\_

### 2 Write the numbers 221 to 250

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### Write the total amount of money.




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143

Week 27, Day 1:

Duration:

Roll:

Remarks:



## Introduction

- Have pupils count by ones from 490 to 500.

## Development

### Activity 1 Measurement: Time

- Draw:** Write the months of the year on the board.
- Guide:** Say them and have pupils repeat them several times.
- Have the pupils copy them in their books.

### Activity 2 Whole numbers: Comparing numbers

- Demonstrate:** Use place value to order the following numbers from greatest to least:  
84, 76, 75, 88 → 88, 84, 76, 75
- Remind pupils that when looking at place value we start with the tens then the ones.
- Guide:** Have pupils order the following numbers from greatest to least using place value:  
93, 98, 91, 94 → 98, 94, 93, 91

### Activity 3 Whole numbers: Reading and writing numbers

- Guide:** Write the following numbers on the board and have pupils identify them:  
340, 356, 372, 365
- Guide:** Say the following numbers and have pupils write the numbers on the board:  
317, 340, 377, 380

## Classwork

- Pupils to work out the activities on page 144.

## Conclusion

- Write 45, 20, 35.
- Have pupils order the numbers from the greatest to the least.

## Homework

- Write the numbers 330 to 340.

- Write the numbers 340 to 350.

- Write the months of the year.



### 1 Copy the months of the year.

|                |                 |
|----------------|-----------------|
| January _____  | July _____      |
| February _____ | August _____    |
| March _____    | September _____ |
| April _____    | October _____   |
| May _____      | November _____  |
| June _____     | December _____  |

### Order from greatest to least.

2 64 53 70 66 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

### 3 Write the numbers 360 to 380.

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Week 27, Day 2:

Duration:

Roll:

Remarks: \_\_\_\_\_

## Introduction

- Have pupils say the days of the week and the months of the year.

## Development

### Activity 1 Measurement: Time

- Demonstrate:** Use the calendar on the pupil book to demonstrate how to read the calendar.
- Explain that the columns are the days of the week and the rows are the dates.
- Show pupils that January 1 will be a Wednesday.
- Guide:** Have pupils tell you what day January 21 will be → Tuesday
- Repeat with several other days.

### Activity 2 Whole numbers: Reading and writing numbers

- Guide:** Write the following numbers on the board and have pupils identify and say them:  
400, 407, 423, 450.
- Guide:** Say the following numbers and have pupils write the numbers on the board:  
415, 433, 440, 457

### Activity 3 Operations: Multiplication

- Demonstrate:** Review how to multiply using repeated addition as shown below:  
 $10 + 10 + 10 = 10 \times 3 = 30$   
 $0 + 0 + 0 + 0 = 0 \times 4 = 0$
- Guide:** Work with pupils to work out the following using repeated addition:  
 $10 \times 4 = \underline{\quad}$        $0 \times 4 = \underline{\quad}$

## Classwork

- Pupils to work out the activities on page 145.

## Conclusion

- Have pupils count by ones from 650 to 660.

## Homework

- Write the numbers 420 to 430.

- Write the numbers 430 to 440.

Subtract:

- $73 - 23 = \underline{\quad}$
- $57 - 55 = \underline{\quad}$
- $66 - 60 = \underline{\quad}$
- $95 - 45 = \underline{\quad}$



## 1 Look at the calendar. Write the day of the week.

| JANUARY |        |         |           |          |        |          |
|---------|--------|---------|-----------|----------|--------|----------|
| Sunday  | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|         |        |         | 1         | 2        | 3      | 4        |
| 5       | 6      | 7       | 8         | 9        | 10     | 11       |
| 12      | 13     | 14      | 15        | 16       | 17     | 18       |
| 19      | 20     | 21      | 22        | 23       | 24     | 25       |
| 26      | 27     | 28      | 29        | 30       | 31     |          |

January 6 \_\_\_\_\_

January 14 \_\_\_\_\_

January 30 \_\_\_\_\_

January 5 \_\_\_\_\_

## 2 Write the numbers 400 to 420.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Work out.

3  $2 \times 10 = \underline{\quad}$       4  $4 \times 0 = \underline{\quad}$

Week 27, Day 3:

Duration:

Roll:

Remarks: \_\_\_\_\_

## Introduction

- Have the pupils use the symbols to compare:  
46 and 57 (<)                      38 and 25 (>)

## Development

### Activity 1 Operations: Multiplication

- Demonstrate:** Review how to multiply by 10 using repeated addition as shown below:

$$10 + 10 + 10 = 3 \times 10 = \underline{30}$$

$$10 + 10 + 10 + 10 = 4 \times 10 = \underline{40}$$

- Guide:** Work with pupils to work out the following using repeated addition:

$$6 \times 10 = \underline{\quad} \quad 5 \times 10 = \underline{\quad}$$

### Activity 2 Operations: Equivalence

- Draw:** Write  $28 + \underline{\quad} = 34 + 14$  on the board.
- Demonstrate:** Show how to balance the following statement on the board:

$$\begin{array}{c} 28 + \underline{20} = 34 + 14 \\ \underbrace{\quad\quad}_{48} \quad \underbrace{\quad\quad}_{48} \end{array} \quad \text{Explain that both sides of equation should balance.}$$

- Guide:** Have the pupils balance the following statement on the board:  $53 + 24 = \underline{\quad} + 41$

## Classwork

- Pupils to work out the activities on page 146.

## Conclusion

- Have pupils work out the following multiplication problems:

$$1 \times 10 = \underline{\quad} \quad 2 \times 10 = \underline{\quad} \quad 3 \times 10 = \underline{\quad}$$

$$4 \times 10 = \underline{\quad} \quad 5 \times 10 = \underline{\quad}$$

## Homework

### Multiply by 10

$$1. \quad 6 \times 10 = \underline{\quad}$$

$$2. \quad 7 \times 10 = \underline{\quad}$$

$$3. \quad 8 \times 10 = \underline{\quad}$$

$$4. \quad 9 \times 10 = \underline{\quad}$$

### Balance to make equal

$$5. \quad 22 + \underline{\quad} = 35 + 43$$

$$6. \quad \underline{\quad} + 18 = 18 + 30$$

$$7. \quad 41 + 17 = 32 + \underline{\quad}$$



## Work out.

$$1 \quad 2 \times 10 = \underline{\quad}$$

$$2 \quad 3 \times 10 = \underline{\quad}$$

$$3 \quad 5 \times 10 = \underline{\quad}$$

$$4 \quad 4 \times 10 = \underline{\quad}$$

## Write > or < inside the circle.

$$5 \quad 74 \bigcirc 73$$

$$6 \quad 67 \bigcirc 99$$

$$7 \quad 53 \bigcirc 73$$

$$8 \quad 48 \bigcirc 43$$

## Balance to make equal.

$$9 \quad 61 + \underline{\quad} = 54 + 43$$

$$10 \quad 43 + \underline{\quad} = 35 + 24$$

$$11 \quad 47 + 30 = 41 + \underline{\quad}$$

Week 27, Day 4:

Duration:

Roll:

Remarks:



# Hundreds Chart

|    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|-----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20  |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30  |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50  |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60  |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70  |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80  |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90  |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



# Weekly Test, Week 1

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Count by 1s. Write the next numbers.

57, 58, (59), (60), (61), (62),

(63), (64), (65), (66), (67), (68),

(69), (70)

2. Circle the greater number.

28 24 (Pupils should circle 28.)

3. Circle the lesser number.

16 21 (Pupils should circle 16.)

4. Write the missing number.

27, 28, 29, (30), 31, 32

5. Write the missing number.

42, 43, 44, (45), 46, 47

6. Fill in the chart.

| Tens | Ones |
|------|------|
| 4    | 9    |

(Pupils should write a 4 in the Tens column and a 9 in the Ones column.)

7. Balance to make equal.

5 + (2) = 10 - 3

8. Balance to make equal.

(9) - 4 = 1 + 4

9. Subtract by breaking apart numbers.

14 - 5 =

14 - (4) - (1) = 9

10. Write the time.



(8 o'clock)



## Weekly Test, Week 2

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Count by 1s. Write the next numbers.

70, 69, (68), (67), (66), (65),

(64), (63), (62), (61), (60), (59)

(58), (57)

2. Count by 1s. Write the next numbers.

49, 50, 51, (52), (53), (54)

3. Write the missing number.

50, (40), 30, 20, 10

4. Order from least to greatest.

24   16   22

(16), (22), (24)

5. Subtract by breaking apart.

$$17 - 8 =$$

$$17 - (7) - (1) = 9$$

6. Add using regrouping.

$$\begin{array}{r} 16 \\ +14 \\ \hline (30) \end{array}$$

7. Solve the word statement.

Jata has 10 bananas. She gives 8 bananas to her friend. How many bananas does Jata have left?

(2) bananas

8. Add.

$$7 + 7 = (14)$$

9. Write the next number.

62, (63)

10. Count and write the number of small dots.



(40)





# Weekly Test, Week 3

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Write the time in words.



(half past eight)

2. Write the next number.

20, 30, 40, (50)

3. Write the next number.

50, 55, 60, (65)

4. Write the next number.

48, 50, 52, (54)

5. Add by breaking apart.

$$8 + 9 =$$

$$(\underline{7}) + (\underline{1}) + 9 = 17$$

6. Subtract using regrouping.

$$\begin{array}{r} 27 \\ - 9 \\ \hline (\underline{18}) \end{array}$$

7. Balance the equation.

$$\bigcirc + (\underline{\bigcirc\bigcirc}) \quad \bigcirc\bigcirc\bigcirc\bigcirc$$

$$1 + (\underline{2}) = 4 - 1$$

(Pupils should draw 2 circles on the left side of the equation.)

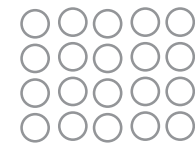
8. Write the missing number.

50, 52, 54, (56), 58

9. Write the missing number.

68, 66, 64, (62), 60

10. Circle the group that shows more.



(Pupils should circle the array with 4 rows of 5 circles.)



## Weekly Test, Week 4

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

54, 53, 52, (51), (50), (49)

2. Order from least to greatest.

21 27 19

(19), (21), (27)

3. Order from greatest to least.

25 29 23

(29), (25), (23)

4. Write the missing number.

53, 55, 57, (59), 61, 63

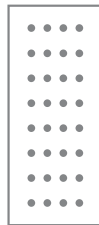
5. Write the missing number.

49, 47, 45, (43), 41, 39

6. Balance to make equal.

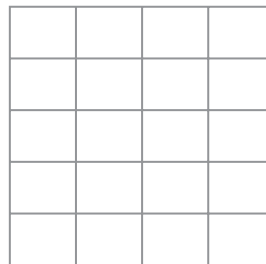
$$\underline{(5)} - 2 = 2 + \underline{1}$$

7. Write the number of dots.

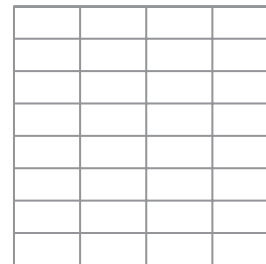


(32)

8. How many parts are in each rectangle?



(20)



(32)

9. Work out.

The teacher has 19 pencils. He gives 7 pencils to the pupils. How many pencils does the teacher have left?

(12) pencils

10. Write the time.



(Quarter past 7)



## Weekly Test, Week 5

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Count by 5s. Write the next numbers.

65, 60, 55, (50), (45), (40)

2. Count by 2s. Write the next numbers.

52, 54, 56, (58), (60), (62)

3. Use the number line to order from least to greatest.



24    39    32    28

(24, 28, 32, 39)

4. Use the number line to order from greatest to least.



34    27    33    24

(34, 33, 27, 24)

5. Write the missing number.

40, 45, (50), 55, 60

6. Write the missing number.

70, (65), 60, 55, 50

7. Count and write the number of dots.



= (28)

8. Write the number of dots.



(50)

9. Work out.

$$\begin{array}{r} 18 \\ +17 \\ \hline \end{array}$$

(35)

10. Draw a square and a rectangle.



(Pupils should draw a square and a rectangle.)



# Weekly Test, Week 6

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

62, 63, 64, (65), (66), (67)

2. Circle the lesser number.

32 26 (Pupils should circle the 26.)

3. Circle the greater number.

36 39 (Pupils should circle the 39.)

4. Write the missing number.

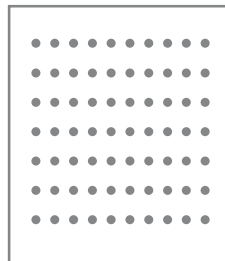
20, 30, (40), 50, 60

5. Write the numerals from 75 to 85.

(75), (76), (77), (78), (79), (80),

(81), (82), (83), (84), (85)

6. Write the number of dots.



(70)

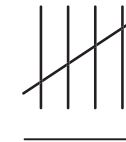
7. Balance the statement.



8 - 3 = 6 - (1)

(Pupils should draw 5 more circles next to the 3 circles on the right side of the equation.)

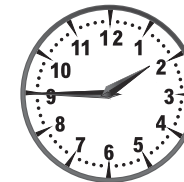
8. Write the number.



(5)

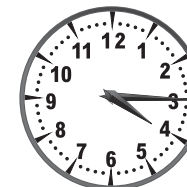
(Pupils write 5)

9. Write the time.



(quarter to two)

10. Write the time.



(quarter past four)



# Weekly Test, Week 7

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Write the next numbers.

77, 78, (79), (80), (81)

2. Write the next numbers.

321, 322, 323, (324), (325), (326)

3. Write the missing number.

410, 411, 412, 413, (414), (415), 416

4. Order from least to greatest.

38 26 36 24

(24), (26), (36), (38)

5. Fill the place value.

|     |          |      |      |
|-----|----------|------|------|
| 247 | Hundreds | Tens | Ones |
|     |          |      |      |

(2 hundreds, 4 tens, 7 ones)

6. Fill the place value.

|    |          |      |      |
|----|----------|------|------|
| 27 | Hundreds | Tens | Ones |
|    |          |      |      |

(0 hundreds, 2 tens, 7 ones)

7. Write the next number.

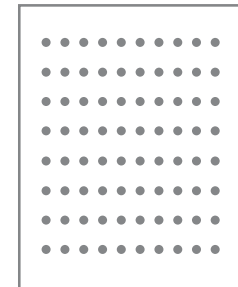
94, (95)

8. Add by breaking apart.

$$18 + 7 =$$

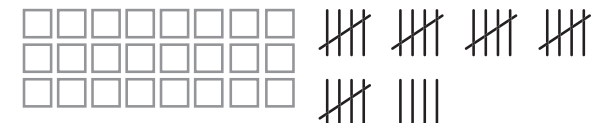
$$(18) + (2) + (5) = 25$$

9. Write the number of dots.



(80)

10. Use tallies to count boxes.



(24)

(Pupils should draw a tally for 24 and write the number 24.)



# Weekly Test, Week 8

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

70, 75, 80, (85), (90), (95)

2. Write the next numbers.

82, 84, 86, (88), (90), (92)

3. Write the missing number.

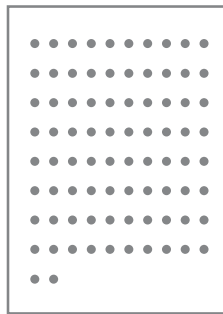
83, 81, (79), 77, 75, 73

4. Order from least to greatest.

25 31 29 37

(25), (29), (31), (37)

5. Write the number of dots.



(82)

6. Balance the equation.

$$(3) + 4 = 10 - 3$$

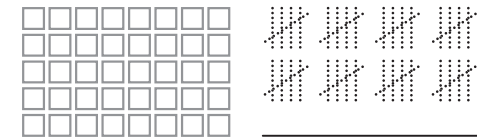
7. Subtract.

$$\begin{array}{r} 438 \\ - 124 \\ \hline (314) \end{array}$$

8. Subtract.

$$\begin{array}{r} 324 \\ - 12 \\ \hline (312) \end{array}$$

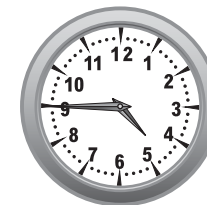
9. Draw the tallies.



(40)

(Pupils should draw a tally for 40 and write the number 40.)

10. Write the time.



(A quarter to five)



## Weekly Test, Week 9

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next number.

20, 30, 40, 50, (60)

2. Write the next number.

0, 100, 200, 300, (400)

3. Write the next number.

700, 600, 500, (400), (300)

4. Add.

$$\begin{array}{r} 247 \\ + 129 \\ \hline \end{array} \quad (376)$$

5. Subtract.

$$\begin{array}{r} 342 \\ - 101 \\ \hline \end{array} \quad (241)$$

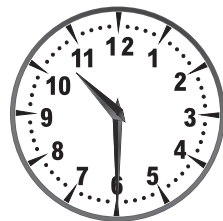
6. Subtract by breaking apart.

$$\begin{array}{r} 34 \\ - 9 \\ \hline \end{array} =$$
$$(\underline{34}) - (\underline{4}) - (\underline{5}) = (\underline{25})$$

7. Subtract by breaking apart.

$$\begin{array}{r} 33 \\ - 7 \\ \hline \end{array} =$$
$$(\underline{33}) - (\underline{3}) - (\underline{4}) = (\underline{26})$$

8. Write the time.

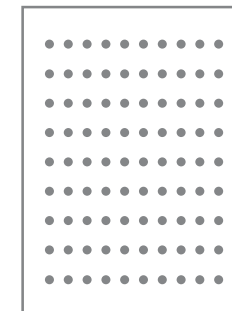


(half past 10)

9. Add.

$$\begin{array}{r} 293 \\ + 124 \\ \hline \end{array} \quad (417)$$

10. Write the number of dots.



(90)





## Weekly Test, Week 10

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Write the next number.

85, 80, 75, 70, (65)

2. Write the next number.

92, 90, 88, 86, (84)

3. Write the missing number.

80, 70, (60), 50, 40

4. Write the missing number.

60, 70, (80), 90, 100

5. Solve the word statement.

Nekesa solved 3 math problems on Monday, 6 math problems on Tuesday, 9 math problems on Wednesday, and 12 math problems on Thursday. If the pattern continues, how many math problems will Nekesa solve on Friday?

(15) math problems

6. Solve the word statement.

There were 30 boats in the port on Saturday. On Sunday there were 25 boats, on Monday there were 20 boats and on Tuesday there were 15 boats. If the pattern continues, how many boats will be in the port on Wednesday?

(10) boats

7. Circle the 3rd shape.



(Pupils should circle the triangle on the left.)

8. Circle the 6th shape.



(Pupils should circle the star on the right.)

9. Draw tallies for the groups.



(Pupils to draw 10 dots)

(10)

10. Fill the place value chart.

|     |          |      |      |
|-----|----------|------|------|
| 890 | Hundreds | Tens | Ones |
|     |          |      |      |

(8 hundreds, 9 tens, 0 ones)



## Weekly Test, Week 11

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the missing numbers.

84, 85, 86, (87), 88, 89, 90, (91)

2. Order from least to greatest.

20 35 15 25 40

(15), (20), (25), (35), (40)

3. Write the missing numbers.

10 11 12 13 14 (15) 16 17 18 (19) 20

4. Complete the fact family.

$$8 + 6 = (14) \quad 6 + 8 = (14)$$

$$14 - 8 = (6) \quad 14 - 6 = (8)$$

5. Draw the next 2 shapes in the pattern.



(Pupils should draw a triangle and a circle to complete the pattern.)

6. Make groups of dots to show the number.

40

(Pupils should draw dots with 4 rows of 10 dots.)

7. Write greater than or less than inside the circle.

19 ○ 26

(Pupils should write less than in the circle)

8. Write greater than or less than inside the circle.

35 ○ 27

(Pupils should write less than in the circle)

9. Balance to make equal.

$$17 = 8 + (9)$$

10. Work out and match.

$$\begin{array}{r} 341 \\ + 29 \\ \hline (370) \end{array}$$

$$\begin{array}{r} 349 \\ + 21 \\ \hline (370) \end{array}$$



## Weekly Test, Week 12

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next number.

3, 6, 9, 12, 15, (18)

2. Write the next number.

4, 8, 12, 16, 20, (24)

3. Write the missing number.



4. Write the missing number.



5. Circle the lesser number.

36    39

(Pupils should circle 36.)

6. Subtract.

$$\begin{array}{r} 47 \\ - 19 \\ \hline (28) \end{array}$$

7. Work out.

$$16 + 19 = (\underline{35})$$

8. Write greater than or less than inside the circle.

$$13 + 5 \bigcirc 19$$

(Pupils should write less than in the circle)

9. Write greater than or less than inside the circle.

$$19 - 2 \bigcirc 14$$

(Pupils should write greater than in the circle)

10. Balance to make equal.

$$16 + 14 = (\underline{12}) + 18$$



## Weekly Test, Week 13

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

1. Write the next number.

85, 80, 75, (70)

2. Write the next number.

370, 365, 360, (355)

3. Order from least to greatest.

33 29 31 38

(29), (31), (33), (38)

4. Complete the pattern.

: :: ::

2, 4, 8, \_\_\_\_\_

5. Write the number of dots and circle the greater number.

•••••

•••••

\_\_\_\_\_

\_\_\_\_\_

6. Write the number of dots. Then circle the greater number.

Draw an array with 4 rows of 9 dots to the left of an array with 4 rows of 8 dots.

••••••••  
••••••••  
••••••••  
••••••••

••••••••  
••••••••  
••••••••  
••••••••

(Pupils should write 36 under the array with 4 rows of 9 dots and 32 under the array with 4 rows of 8 dots. Pupils should circle 36.)

7. Draw the next shapes in the pattern.



\_\_\_\_\_

(Pupils should draw a circle, a star, and a triangle.)

8. Write greater than or less than.

19 - 4 \_\_\_\_\_ 11 + 5

(Pupils should write is less than in the space.)

9. Work out the word statements.

Tamba has 44 oranges. Adu has 38 oranges. How many more oranges does Tamba have?

(6) oranges

10. Balance to make equal.

18 + 12 = (16) + 14



## Weekly Test, Week 14

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

15, 18, 21, (24), (27), (30)

2. Write the next numbers.

40, 36, 32, (28), (24), (20)

3. Write the next numbers.

7, 17, 27, 37, (47), (57), (67)

4. Write the missing numbers.



5. Write the missing number.

85, 80, 75, (70), 65

6. Subtract

$35 - 17 = (\underline{18})$

7. Complete the family.

$9 + 8 = (\underline{17})$

$8 + 9 = (\underline{17})$

$17 - 9 = (\underline{8})$

$17 - 8 = (\underline{9})$

8. Balance to make equal

$19 + 15 = (\underline{17}) + 17$

9. Add.

$$\begin{array}{r} 29 \\ +28 \\ \hline (\underline{57}) \end{array}$$

10. Subtract.

$$\begin{array}{r} 54 \\ -17 \\ \hline (\underline{37}) \end{array}$$



## Weekly Test, Week 15

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the numbers that come before and after.

(84), 85, (86)

2. Count by 3s. Write the missing numbers.

66, 69, 72, (75), (78), (81)

3. Count by 6s. Write the missing numbers.

30, 36, 42, (48), (54), (60)

4. Order from least to greatest.

45 42 47 39

(39), (42), (45), (47)

5. Write the missing numbers.



6. Circle the greater number.

48 43

(Pupils should circle 48.)

7. Count by 4s. Write the missing numbers.

72, 68, 64, (60), (56), (52)

8. Count by 8s. Write the missing numbers.

40, 48, 56, (64), (72), (80)

9. Balance to make equal.

28 + (17) = 26 + 19

10. Balance to make equal.

26 + 18 = 29 + (15)



## Weekly Test, Week 16

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

90, 87, 84, (81), (78), (75)

2. Write the next numbers .

96, 92, 88, (84), (80), (76)

3. Write the numbers that come before and after.

(98), 99, (100)

4. Subtract.
- $$\begin{array}{r} 60 \\ -28 \\ \hline \end{array}$$

5. Subtract.

$$\begin{array}{r} 43 \\ -29 \\ \hline \end{array}$$

6. Write > or < inside the circle.

37 ○ 35

(Pupils should write > in the circle.)

7. Write > or < inside the circle.

34 ○ 38

(Pupils should write < in the circle.)

8. Add.

$$25 + 22 = \underline{(47)}$$

9. Add.

$$8 + 0 = \underline{(8)}$$

10. Work out the problem.

Daniel planted 19 lemon trees last week. He planted 24 lemon trees this week. How many lemon trees has Daniel planted in all?

(43) lemon trees





## Weekly Test, Week 17

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.



2. Write the next numbers.

106, 104, 102, (100), (98), (96)

3. Write the missing number.

63, 56, (49), 42, 35

4. Subtract. Break a number to solve.

$$47 - 24 = \underline{(23)}$$

5. Write  $>$  or  $<$  inside the circle.

$$44 \bigcirc 45$$

(Pupils should write  $<$  in the circle.)

6. Write  $>$  or  $<$  inside the circle.

$$42 \bigcirc 47$$

(Pupils should write  $<$  in the circle.)

7. Add or subtract.

$$\begin{array}{r} 53 \\ -28 \\ \hline (25) \end{array}$$

$$\begin{array}{r} 28 \\ +25 \\ \hline (53) \end{array}$$

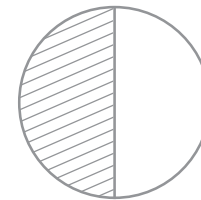
8. Add.

$$8 + 2 + 11 = \underline{(21)}$$

9. Subtract.

$$16 - 7 = \underline{(9)}$$

10. Write the shaded fraction.



(one half)



## Weekly Test, Week 18

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

115, 116, 117, (118), (119), (120)

2. Write the next numbers .

118, 117, 116, (115), (114), (113)

3. Write the number of dots.



(Pupils should write 30.)

4. Write the numbers that come before and after.

(117), 118, (119)

5. Multiply.

$$3 \times 2 = \underline{\quad}$$

6. Multiply

$$1 \times 4 = \underline{\quad}$$

7. Complete the number line.



8. Draw the rule of the pattern.



(Pupils to draw 2 circles, 1 square and 2 triangles)

9. Multiply.

$$4 \times 4 = \underline{\quad}$$

10. Write the number sentence. Solve the problem. Then use the number sentence to write a new word problem.

Nekesa brought 36 bags of rice to the market to sell. She sold 24 bags of rice. How many bags of rice are left?

$$\underline{(36 - 24 = 12)}$$

(12) bags of rice

(Pupils should draw a new word problem using the number sentence  $36 - 24 = 12$ .)



## Weekly Test, Week 19

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

116, 114, 112, (110), (108), (106)

2. Multiply.

$$0 \times 4 = \underline{\hspace{2cm}}$$

3. Multiply.

$$3 \times 3 = \underline{\hspace{2cm}}$$

4. Write  $>$  or  $<$  inside the circle.

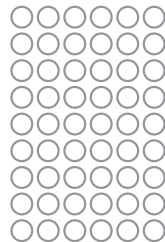
55 ○ 57

(Pupils should write  $<$  in the circle.)

5. Complete the number line.



6. Write the number of circles. Then circle the greater number.



(54)



(50)

(Pupils should circle 54.)

7. Write the number.



8. Multiply.

$$4 \times 10 = \underline{\hspace{2cm}}$$

9. Add.

$$24 + 43 = (67)$$

10. Subtract.

$$65 - 42 = (23)$$



## Weekly Test, Week 20

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

145, 146, 147, (148), (149), (150)

2. Write the next numbers.

145, 144, 143, (142), (141), (140)

3. Write the numbers that come before and after.

(138), 139, (140)

4. Add.

$$\begin{array}{r} 49 \\ + 24 \\ \hline \end{array}$$

5. Add.

$$\begin{array}{r} 247 \\ + 128 \\ \hline \end{array}$$

6. Subtract.

$$\begin{array}{r} 489 \\ - 124 \\ \hline \end{array}$$

7. Multiply.

$$5 \times 5 = \underline{\quad}$$

8. Multiply.

$$2 \times 3 = \underline{\quad}$$

9. Write the number sentence and work out.

Clara made 54 rings. She sold 17 rings at the market. How many rings does Clara have left?

$$(\underline{54 - 17 = 37})$$

(37) bracelets

10. Write the number sentence and solve.

Tebbeh has 33 shillings. Nekesa has 25 shillings. How much money do they have altogether?

$$(\underline{33 + 25 = 58})$$

(58) shillings



## Weekly Test, Week 21

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

150, 148, 146, (144), (142), (140)

2. Count by 8s. Write the missing number.

104, 112, (120), 128, 136

3. Order from least to greatest.

58 54 14 35

(14), (35), (54), (58)

4. Add.

$$\begin{array}{r} 247 \\ + 128 \\ \hline \end{array}$$

5. Add.

$$\begin{array}{r} 127 \\ + 49 \\ \hline \end{array}$$

6. Subtract.

$$\begin{array}{r} 86 \\ - 59 \\ \hline \end{array}$$

7. Balance to make equal.

$$41 + 24 = (31) + 0 + 34$$

8. Subtract.

$$57 - 35 = (22)$$

9. Balance to make equal.

$$\begin{array}{ccc} \dots\dots & \dots\dots & \\ \dots & \dots & \end{array}$$

$$7 + 3 = 3 + (7)$$

10. Multiply.

$$4 \times 0 = \underline{\quad}$$



## Weekly Test, Week 22

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

165, 166, 167, (168), (169), (170)

2. Write the missing number.

138, 144, (150), 156, 162

3. Write the numerals that come before and after.

(164), 165, (166)

4. Write the numbers from 420 to 430

420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430

5. Write the missing numbers.



6. Complete the number line.



7. Write > or < inside the circle.

62   ○   65

(Pupils should write < in the circle.)

8. Subtract.

$$67 - 43 =$$

$$67 - \underline{(40)} - \underline{(3)} =$$

$$\underline{(27)} - \underline{(3)} = \underline{(24)}$$

9. Work out the problem.

Okuma has 68 beads. She gives 25 beads to her sister. How many beads does Nafala have left?

$$\underline{(68 - 25 = 43)}$$

(43) beads

10. Circle the shorter line.

\_\_\_\_\_

\_\_\_\_\_

(Pupils to circle the line at the bottom)



## Weekly Test, Week 23

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

195, 196, 197, (198), (199), (200)

2. Write the numbers that come before and after.

(189), 190, (191)

3. Write the missing numbers.

174, 180, (186), 192, 198

4. Write the missing numbers.



5. Write  $>$  or  $<$  inside the circle.

76 ○ 78

(Pupils should write  $<$  in the circle.)

6. Add.

$$38 + 26 = (64)$$

7. Balance to make equal.

$$38 + 27 = (17) + 0 + 48$$

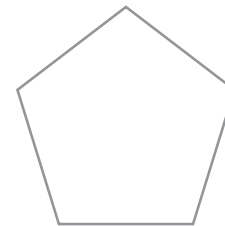
8. Add.

$$\begin{array}{r} 65 \\ + 39 \\ \hline (104) \end{array}$$

9. Subtract.

$$\begin{array}{r} 247 \\ - 21 \\ \hline (226) \end{array}$$

10. Write the number of sides and corners.



(5) sides

(5) corners





## Weekly Test, Week 24

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Write the next numbers.

190, 192, 194, (196), (198), (200)

2. Write the next numbers.

200, 195, 190, (185), (180), (175)

3. Write the next numbers.

47, 57, 67, (77), (87), (97)

4. Order from least to greatest.

67 65 70 56

(56), (65), (67), (70)

5. Divide.

$$12 \div 3 = \underline{\quad}$$

6. Divide.

$$25 \div 5 = \underline{\quad}$$

7. Balance to make equal.

$$19 + (57) = 27 + 49$$

8. Work out the problem.

Kigen has 35 beads. His sister gives him 42 beads. How many beads does Kigen have?

$$(35 + 42 = 77)$$

(77) beads

9. The shopkeeper had 68 loaves of bread. He sold 46 loaves of bread. How many loaves of bread does he have left?

$$(68 - 46 = 22)$$

(22) loaves of bread

10. Balance to make equal.

$$58 + 16 = (29) + 45$$



## Weekly Test, Week 25

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Divide.

$$14 \div 2 = \underline{\quad}$$

2. Divide.

$$21 \div 7 = \underline{\quad}$$

3. Subtract.

$$\begin{array}{r} 471 \\ - 21 \\ \hline \end{array}$$

4. Write > or < inside the circle.

$$82 \bigcirc 83$$

(Pupils should write < in the circle.)

5. Write the position of the underlined letters.

ABCCDABCCDABCCD

(Pupils should write 8th and 9th.)

6. Multiply.

$$4 \times 4 = \underline{\quad}$$

7. Divide.

$$25 \div 5 = \underline{\quad}$$

8. Work out.

Makena used 52 red beads, 41 white beads, and 37 blue beads to make a necklace. How many red and blue beads did Makena use?

(89) red and blue beads

9. Divide.

$$12 \div 6 = \underline{\quad}$$

10. Divide.

$$18 \div 9 = \underline{\quad}$$



## Weekly Test, Week 26

Write the following questions on the board. Have pupils write or draw answers in their exercise books. Correct answers appear in the brackets — when these are underlined, draw blank lines on the board.

.....

1. Order from least to greatest.

**68** **80** **78** **73**

(68), (73), (78), (80)

2. Write > or < inside the circle.

98 ○ 95

(Pupils should write > in the circle.)

3. Subtract.

$75 - 43 = \underline{(32)}$

4. Subtract.

$78 - 32 = \underline{(46)}$

5. Balance to make equal.

$58 + 35 = \underline{(46)} + 47$

6. Balance to make equal.

(31) + 64 = 54 + 41

7. Work out.

Kipkemboi has 94 shillings. She gives 32 shillings to her brother. How many shillings does Kipkemboi have left?

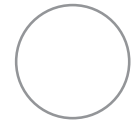
$(94 - 32 = 62)$

(62) shillings

8. Multiply.

$3 \times 3 = \underline{\quad}$

9. Draw a line on the shape with a curve.

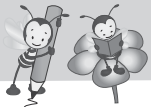


( )

10. Write the number of corners.



(4) corners

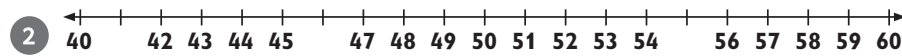


## End-of-Year Test

Write the next numbers.

1 196, 197, 198, \_\_\_\_\_, \_\_\_\_\_

Write the missing numbers.



Write > or <.

3 94 ○ 98

Work out.

4  $6 \div 2 =$  \_\_\_\_\_

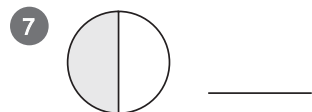
Write the number of dots.



Order from greatest to least.



Write the fraction.



Write the number of corners in each shape.



## End-of-Year Test

Work out.

9 
$$\begin{array}{r} 75 \\ -38 \\ \hline \end{array} \quad \begin{array}{r} 38 \\ +37 \\ \hline \end{array}$$

10  $4 + 8 + 6 =$  \_\_\_\_\_

$4 + 8 + 6 =$  \_\_\_\_\_

Work out.

- 11 Njoroge made 53 skirts and 39 dresses. How many skirts and dresses did he make in all?

\_\_\_\_\_ skirts and dresses

Write the total value of the coins.



Balance to make equal.

13  $52 + 47 =$  \_\_\_\_\_  $+ 34$

Write the time.



Measure the line.

15 \_\_\_\_\_ centimetres

Write the next letters in the pattern.

16 AABCCAABCCAABCC \_\_\_\_\_

## Glossary

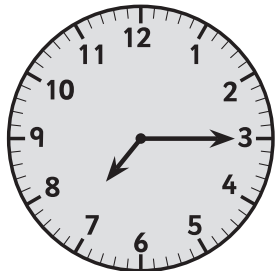
**Place value:** is the value of each digit in a number in the relation to the position occupied by the digit.

**Rule:** A rule tells how numbers relate to one another in a pattern. Eg the pattern 50, 45, 40, 35, 30, 25, 20. The rule is that the numbers are decreasing by 5.

**Time:**

The short hand is the hour hand. It tells the number of hours.

The long hand is the minute hand. It tells the number of minutes



The time is a quarter past seven.

**Operations:**

**Addition** is the process of joining numbers to find the sum.

**Subtraction:** Subtraction is the process of taking some number away from another number to find the difference.

**Note:** Addition and subtraction are opposite operations hence they undo each other.

$$6 + 5 = 11 \text{ and } 11 - 5 = 6.$$

**A fact family** is the set of four related addition and subtraction problems using the same numbers.

$$4 + 5 = 9$$

$$9 - 4 = 5$$

$$5 + 4 = 9$$

$$9 - 5 = 4$$

**Regrouping** is the act 'borrowing' a number value from the number to the left of the number you are operating in.

$$\begin{array}{r} 1 \\ 25 \\ + 17 \\ \hline \end{array}$$

**Numbers:**

| Number | Word Form | Ordinal Number   |         |
|--------|-----------|------------------|---------|
| 1      | One       | 1 <sup>st</sup>  | first   |
| 2      | Two       | 2 <sup>nd</sup>  | second  |
| 3      | Three     | 3 <sup>rd</sup>  | third   |
| 4      | Four      | 4 <sup>th</sup>  | fourth  |
| 5      | Five      | 5 <sup>th</sup>  | fifth   |
| 6      | Six       | 6 <sup>th</sup>  | sixth   |
| 7      | Seven     | 7 <sup>th</sup>  | seventh |
| 8      | Eight     | 8 <sup>th</sup>  | eighth  |
| 9      | Nine      | 9 <sup>th</sup>  | ninth   |
| 10     | Ten       | 10 <sup>th</sup> | tenth   |

# Maths Teacher's Guide: Class 2

